U.S. Department of Justice

Washington, D.C. 20530

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December 20, 1993

VIA FEDERAL EXPRESS

Steven Mason
Assoc. Regional Counsel
U.S. EPA Region V
77 West Jackson Blvd.
Chicago, IL 60604-3590

Re: United States v. Conrail

Dear Steve:

Enclosed please find copies of Frank West, Rita Rae Boje and Steven Baggett depositions.

Please call me if you have any questions.

Sincerely,

Maria T. Polverini

Maria Polverini
Paralegal
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enclosure

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF INDIANA
SOUTH BEND DIVISION

UNITED STATES OF AMERICA, Plaintiff, -vs- CONSOLIDATED RAIL CORPORATION, a/k/a CONRAIL, Defendant.	CIVIL ACTION NO. S90-00056

The Deposition of FRANK D. WEST, taken before me, Deanne S. Hutson, Notary Public in and for the County of Marion, State of Indiana; taken on the 8th day of November, 1993, at the offices of Groundwater Technology, Inc., 486 Gradle Drive, Carmel, Indiana, on behalf of the Plaintiff in the above-captioned case.

* * * * *

SHIREY REPORTING SERVICE, INC.
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Indianapolis, Indiana 46204
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APPEARANCES

DEPARTMENT OF JUSTICE, ENVIRONMENTAL ENFORCEMENT SECTION, ENVIRONMENT AND NATURAL RESOURCES DIVISION, by Peter H. Ruvolo and Peter E. Jaffe, 10th and Constitution Avenue, N.W., P.O. Box 7611, Ben Franklin Station, Washington, D.C., appeared on behalf of the Plaintiff.

BINGHAM, DANA & GOULD, by James A. Ermilio, 1550 M Street, N.W., Suite 1200, Washington, D.C., appeared on behalf of the Defendant Conrail.

GOODWIN, PROCTER & HOAR, by Robert A. Freeman, Exchange Place, Boston, Massachusetts, appeared on behalf of Gemeinhardt Company, Inc.

FROST & JACOBS, by Jonathan A. Conte, 2500 PNC Center, 201 East Fifth Street, Cincinnati, Ohio, appeared on behalf of Penn Central.

WARRICK, WEAVER & BOYN, by James V. Woodsmall, Midwest Commerce Building, Suite 400, 121 West Franklin Street, Elkhart, Indiana, appeared on behalf of Elkhart Office Machines.

EXAMINATION INDEX

	page
DIRECT EXAMINATION, by Mr. Ruvolo	4
CROSS-EXAMINATION, by Mr. Freeman	175
CROSS-EXAMINATION, by Mr. Conte	179
CROSS-EXAMINATION, by Mr. Woodsmall	191

EXHIBIT INDEX

PLAINTIFF'S EXHIBIT 1	4
PLAINTIFF'S EXHIBIT 2	14
PLAINTIFF'S EXHIBIT 3	55
PLAINTIFF'S EXHIBIT 4	75
PLAINTIFF'S EXHIBIT 5	78
PLAINTIFF'S EXHIBIT 6	90
PLAINTIFF'S EXHIBIT 7	99
PLAINTIFF'S EXHIBIT 8	101
PLAINTIFF'S EXHIBIT 9	117
PLAINTIFF'S EXHIBIT 10	128
PLAINTIFF'S EXHIBIT 11	131
PLAINTIFF'S EXHIBIT 12	132
PLAINTIFF'S EXHIBIT 13	139
PLAINTIFF'S EXHIBIT 14	142
PLAINTIFF'S EXHIBIT 15	145
PLAINTIFF'S EXHIBIT 16	147
PLAINTIFF'S EXHIBIT 17	148
PLAINTIFF'S EXHIBIT 18	154
PLAINTIFF'S EXHIBIT 19	156
PLAINTIFF'S EXHIBIT 20	158
PLAINTIFF'S EXHIBIT 21	163
PLAINTIFF'S EXHIBIT 22	164
PLAINTIFF'S EXHIBIT 23	164
PLAINTIFF'S EXHIBIT 24	176
EOM EXHIBIT A	192

F R A N K D. W E S T,

the witness herein, after being duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION,

QUESTIONS BY MR. RUVOLO:

Q. Would you please state your name, Mr. West.

A. Frank David West.

Q. And your business address.

A. 486 Gradle Drive, Carmel, Indiana, 46032.

Q. And a telephone number that you can be reached at.

A. (b) (6)

Q. And you're appearing here today as a witness on behalf of Conrail?

A. That's correct.

Q. And you were served with a notice of deposition?

A. That's correct.

MR. RUVOLO: Can we have this marked?

(Plaintiff's Exhibit 1 marked for identification.)

Q. Is this the notice that you received?

A. Yes.

Q. I take it you read the notice of deposition and what the purpose of the testimony is and what we're attempting to find out here today?

A. Yes.

Q. My name is Peter Ruvolo. I'm with the Justice Department and we represent the United States EPA and I'm here to ask you a series of questions concerning GTI's participation in activities concerning the Conrail yard. If there's anything I ask you that you don't understand, please don't hesitate to say so and I'll try to rephrase it. If at any time you want to take a break, just let us know and we'll be happy to comply. Okay?

A. Okay.

Q. Would you tell us a little bit about yourself, where you went to school and when. I'm talking about college and up.

A. I went to Ball State University, graduated with a degree in geology in the fall of 1987. From there I spent a semester of graduate studies at the University of Akron, Akron, Ohio, and for financial reasons didn't continue on there. Came back to Indianapolis and worked basic

construction type work until I became employed at Groundwater Technology.

Q. When you say basic construction, for whom did you work?

A. Private people. A gentleman I knew who did roofing, painting, those types of things.

Q. When did you say you started at GTI?

A. It would be in April of 1989.

Q. Was it at that time that you got involved in this particular project?

A. It wasn't until later beginning with the Track 69 investigations.

Q. When would that be?

A. That would be spring of '91.

Q. Have you gotten any other degrees other than geology since --

A. No.

Q. When you were hired by GTI it was as a geologist?

A. Technically my title was field technician.

Q. When you became involved in the Track 69 investigation who else in GTI was involved?

A. Rita Boje, Dave Arnold, Bill Bloemer. That's all I can recall.

Q. Could you give me an idea of what the setup was. I take it it was a team operation?
A. Yes.
Q. Who had what responsibility?
A. Rita Boje was project manager. Dave Arnold was technical or project director and I became site manager.
Q. So that you would report to Boje?
A. Yes.
Q. And she would report to Dave Arnold?
A. Right.
Q. Who else worked with you on the site, if you recall?
A. Other field technicians from the office, Matt Manka, Ben Clabaugh.
Q. How would you spell that?
A. That's a good one. C-l-a-b-a-u-g-h.
Q. Just checking. We understand Mr. Arnold is no longer with GTI?
A. That's correct.
Q. Is Ms. Boje with GTI?
A. No.
Q. Who is managing the project today?

A. I have the title of project manager and Dave Demco was project coordinator.
Q. When did Demco come on board?
A. After Dave Arnold left GTI.
Q. Which would be about when?
A. I think it was February of this year.
Q. When did you become project manager?
A. When Rita Boje left GTI.
Q. Which would be when?
A. I think a little over a year ago. I believe it was May of '92, but I'm not sure about that.
Q. Since you've become project manager have you familiarized yourself with the activities that took place prior to your becoming project manager --
A. Yes, I have.
Q. -- on the site? Do you recall when GTI first got involved with Conrail?
A. I believe it was late 1988.
Q. Do you know what the purpose was, what they were retained to do?
A. As I recall, the purpose was to aid Conrail in response to their NPL nomination.

Q. And you personally had nothing to do with that?
A. No.
Q. What did that entail, what did GTI -- what was the purpose, what kind of work were they expected to do?
A. What I can recall -- again, I don't have any firsthand knowledge, but it involved review of files and other technical data. I believe some could have been from other EPA investigations in the area, and based on that, provide a response to EPA NPL ranking.
Q. Has the responsibilities of the project manager changed since you came on board? In other words, are your responsibilities any different than Rita Boje's were initially?
A. Not to a great detail. I believe Rita had more direct contact with Conrail as a client contact than what I have had.
Q. And you work through Demco; is that the idea?
A. Yes.
Q. He's the major contact?
A. Yes.
Q. I'm sure you have contact with Conrail?

A. Yes.
Q. And your first assignment was to do survey work or field sampling when you got involved with this project?
A. Actually you should say that I was involved in the diesel investigation that had been going on prior to when the Track 69 investigations occurred.
Q. What were you supposed to do in regard to the diesel investigation?
A. I was field technician.
Q. What did you do?
A. Sampling, gauging wells, general data collection activities.
Q. When was that?
A. That would have been -- I think would have begun the summer of '90 and continued sporadically throughout that year.
Q. Did you have anything to do with the determination of where the wells would go or how many wells would go in or anything of that nature?
A. For --

Q. The diesel investigation. Let's start with that one.

A. There were two basic phases. First phase involved installation of eight monitoring wells, which I was not involved with. The second included the installation of I think the total number of wells now are 29, and I was involved somewhat in the placement of those in the field.

Q. When you say wells, are they all GTI wells?

A. Yes.

Q. And the eight monitoring wells were GTI wells?

A. That's correct.

Q. Where was the location within the yard? Was this over by the car shop?

A. No, over by the diesel shop.

Q. Which would be --

A. Just north of the hump tower towards the east side of the site.

Q. How long did that investigation go on?

A. The investigation itself, I believe, ended in the winter of '90, and subsequent to those there were mediation systems installed at the diesel shop.

Q. What brought about the diesel investigation? Do

you know?

A. I'm not sure.

Q. How long were the wells in place in that area? Are they still there?

A. Yes.

Q. Are they still being sampled?

A. No.

Q. What was -- what were they looking for with the wells?

A. Diesel fuel.

Q. In the groundwater?

A. In the subsurface.

Q. Did you make any findings?

A. Yeah.

Q. What did you find?

A. We found free phase diesel fuel to the north -- generally to the north of the diesel shop in most of the monitoring wells.

Q. Were there any contaminants in the diesel fuel?

A. I don't know what you mean. Other than diesel fuel?

Q. Uh-huh.

A. Not that I know of.

Q. Were there any chemicals involved, hazardous materials, CCI?

A. No.

Q. TCE, TCA?

A. No.

Q. When you do the sampling you send it to a laboratory for analysis?

A. Yes.

Q. What was the laboratory?

A. GTEL Laboratories.

Q. And they would send back the results to whom?

A. Matthew Darnin who was the diesel investigation project manager.

Q. And then in '91 you began -- the spring of '91 you became involved in the Track 69 investigation?

A. Uh-huh.

Q. What was the purpose of that? What brought about that investigation?

A. The Track 69 investigation, I believe, came about because of an EPA allegation that a carbon tetrachloride spill had occurred somewhere along Track 69.

Q. What did you actually do?
A. I'm not sure I follow you.
Q. How did you investigate this allegation?
A. The initial work we did was to conduct a soil vapor survey along the length of Track 69 to see if there was presence or absence of carbon tetrachloride and, based on the results of that investigation, come up with a subsequent subsurface investigation for further delineation.
Q. Did you install wells?
A. During when?
Q. Tell me when you did.
A. We installed wells during the Phase I and II Track 69 investigation.
Q. Were you part of sampling and monitoring those wells?
A. Yes.
Q. That was part of your function?
A. Yes.

MR. RUVOLO: Can we have that marked as Plaintiff's 2.

(Plaintiff's Exhibit 2 marked for identification.)

Q. Show you Plaintiff's Exhibit 2 for identification, Mr. West, and ask if you can identify that. It's a poor copy, but I believe you can -- you will recognize what it is.

A. I believe it's a copy of my field notes.

Q. That covers the period of what, do you recall?

A. From January 8, '90, to August 31, '92.

Q. So that would cover the period, would it not, of both the diesel investigation and the 69 -- Track 69 investigation?

A. Yes.

Q. Would it cover the activities that were being done on both investigations in regard to yourself?

A. Yes.

Q. I'm not going to have you go through it page by page, but basically what does it consist of? I know it's a logbook, but what's a logbook for the record?

A. The logbook would basically document activities on the site, including general items like the date, weather conditions, soil descriptions, contacts with other individuals.

Q. Turn to the third page which is Bates stamped CO 20797 and tell us what you mean by the bottom of the left-hand side where it says purge 55 gallons.

A. That must have been sampling a monitoring well and prior to collecting the sample you develop the well. That would have been the development water taken out of the bulk prior to sampling.

Q. What do you mean by you develop the well?

A. You take a baler or a pump and extract the well from -- extract the water from the monitoring well.

Q. What is the purpose of that?

A. To ensure that your sample that you collect is representative of what's actually in the auquifer.

Q. What do you do with the water?

A. We discharge the development water from the diesel shop wells to their oil/water separater on site.

Q. Did you take samples of the water for analysis?

A. We took groundwater samples after we purged from the well.

Q. Just above that entry is some letters like D7W D-26. What does that refer to?
A. D-26 would be the well identification. DTW would be depth to water.
Q. And the figure 1647?
A. That would be the time.
Q. On the right-hand side of the page at the top with the date 19/91 down towards the middle. It's purge 55 gallons again. Sample at 89.
A. 850 it looks like.
Q. Again, just below that that identifies the wells?
A. Uh-huh.
Q. And DPW is the depth of the water?
A. Uh-huh.
Q. And that's the time. Again, you take samples of it after you did the purging?
A. Yes.
Q. And send them to a lab for analysis?
A. Yes.
Q. Would you get back the results?
A. I would see the results that would come back to this office.
Q. The following page is CO 20798. Again, upper

left-hand corner. It's basically the same, different wells. D-20, 29, 28, 27, 26.

A. This is survey data here.

Q. In regard to which project?

A. The diesel shop project.

Q. When you say survey, what do you mean?

A. Surveying the elevations of the top of the casing of the wells.

Q. What were your findings in regard to that as indicated from your report?

A. We determined the top of the casing elevations which would be tabularized elsewhere.

Q. On this particular day there's quite a bit of activity. If you look at the right-hand side of the page D-12 was purged and sampled. D-13, 14, 15?

A. Uh-huh.

Q. Was that the normal procedure do a lot of sampling on one day?

A. Yes, when we sampled we sampled as many as we could on a given day.

Q. Again, you would make some calculations or tabularizations of what you have found? Did you

do an analysis or send it for analysis?

A. I'm not sure I follow what you're asking.

Q. You purge and sample. What would you do with what you found?

MR. ERMILIO: Do you mean what does he do with the sample itself?

A. The sample would be packaged and shipped to the lab.

Q. Again, the lab was --

A. GTEL.

Q. And they would do an analysis?

A. That's correct.

Q. And go back to Boje. What would happen with these -- who would get these tabularizations that you made as far as depth?

A. Rita would see them, I would see them.

Q. Turn to about two more pages over to page CO 70800.

A. Uh-huh.

Q. On the right-hand side is a diagram. If you could explain that for us.

A. I believe this is a drawing that details the location around which we were going to install

the recovery well and we were simply noting utilities of concern.

Q. Where would that have been on the property?

A. Appears to be to the northwest of the diesel shop.

Q. This is still part of the diesel investigation, in other words?

A. Yes.

Q. The following page 20801 contains various information regarding these wells. Would you explain what that is and what it's intended to convey?

A. These again are depth to water measurements.

Q. On the left-hand side of the page these are all D wells. Are they GTI's wells?

A. Yes.

Q. On the right side of the page you bring in RW well. What is that?

A. That's a recovery well.

Q. Is that also a GTI well?

A. Yes.

Q. On page 20805 which is about four down dated 6/37/91 it says fixed RMW and BMW-1. Strike

that. It says fixed RMW-5, 6, 2, 1, 4 and BMW-1. What does that mean, fixed?

A. Those, I believe, are wells that were installed during Groundwater Technology initial remedial investigation and I believe the concrete around the well boxes had deteriorated and, therefore, went around repairing those, put down new concrete.

Q. If the concrete had deteriorated there would be seepage into the wells?

A. Potentially.

Q. Did you take any sampling prior to repairs and subsequent to repairs?

A. There would have been samples collected during the remedial investigation and none that I know of in the interim to this point.

Q. The next entry is checked RW-1. I believe it says pump cycling?

A. Uh-huh.

Q. What does that refer to?

A. That is a recovery well and there were pumps in the recovery well pumping groundwater end product and we wanted to make sure that the pumps were in

operating order, that they were cycling

Q. Who was Mike Merritt?

A. Mike Merritt is an employee for Conrail, the Elkhart yard. I'm not familiar exactly with what his duties are.

Q. And Jeff Geary, I take it, is also a Conrail employee?

A. He's the yard superintendent.

Q. It says tried to con contact Nick Mantagino?

A. Montagino..

Q. What does that refer to?

A. I believe he's the track engineer at the railyard.

Q. And finally it says call frank Saboto about possible leaking hydrants. What did you mean by that? Where were they coming from?

A. There's a hydrant located at the diesel shop, but I can't recall what the specifics of that entry are? Is there any entry that follows as to whether anything was done about the hydrants?

A. I couldn't tell you.

MR. ERMILIO: Why don't you take a second and flip through.

(Short pause in proceedings.)

A. I don't see any.

Q. When you say possible leaking hydrants, are you referring to fire hydrants or what kind of hydrants?

A. I believe I'm referring to a fire high hydrant, yes.

Q. Were there many fire hydrants on the property?

A. Just one that I can think of in that area.

Q. Again, we're talking about the diesel area?

A. Yes.

Q. On the following page 20807 on the left-hand side which is dated 1/25/91 about 10:30. See the reference to 10:30? I take it it's the time. 10:30 a.m.

A. Uh-huh.

Q. What does that say?

A. Shoot in BMW-4d. That's benchark for BMW-6 and 7 it looks like.

Q. What does that mean?

A. When we were surveying in wells you would -- you can use one well as a benchmark for surveying other wells.

Q. What is a shoot in?
A. That's just the sight you take through your transit.
Q. Then right underneath that it says finish surveying BMW-7. Is that five or D or five and D?
A. Shallow and deep.
Q. What do you mean by that?
A. One well is shallow and one well is deep.
Q. When it's shallow -- when you refer to shallow what are you talking about in terms of depth?
A. Generally with our nested wells they're relative to each other so it could range. We could have a shallow well that's 10 to 20 feet or designated shallow well that's 40 to 50 feet.
Q. How about deep?
A. I think the deepest well we've put out there goes to 100 or 105 feet.
Q. When you say you use the well as a benchmark, how do you do that? What are the procedures?
A. You take your rod and put it on the top of the casing of that well, take that reading -- that measurement and then shoot in other wells and

relate the shootings from the other wells to the well you shot as a benchmark.

Q. How do you know which well to pick as a benchmark?

A. Many times it's just logistically what's more convenient, from which well you can see most other wells.

Q. In this particular area how many wells were there around the diesel shop, if you recall?

A. This is not around the diesel shop area BMW-4. BMW-7 or 6. If these are what you're referring to.

Q. Where would they be located?

A. They are in the main classification area.

Q. Does that have to do with the investigation of the diesel area or does that have to do with the Track 69 investigation?

A. Track 69.

Q. So now we've swung over to 69. Following page 20808 at the top it's dated 9/30 and I believe it says Fibertron. What is that? What is that reference to?

A. Facility also known as ASA fiberglass. We

conducted a soil vapor survey.

Q. What is involved with a soil vapor survey?

A. Could you be more specific?

Q. What's the procedures?

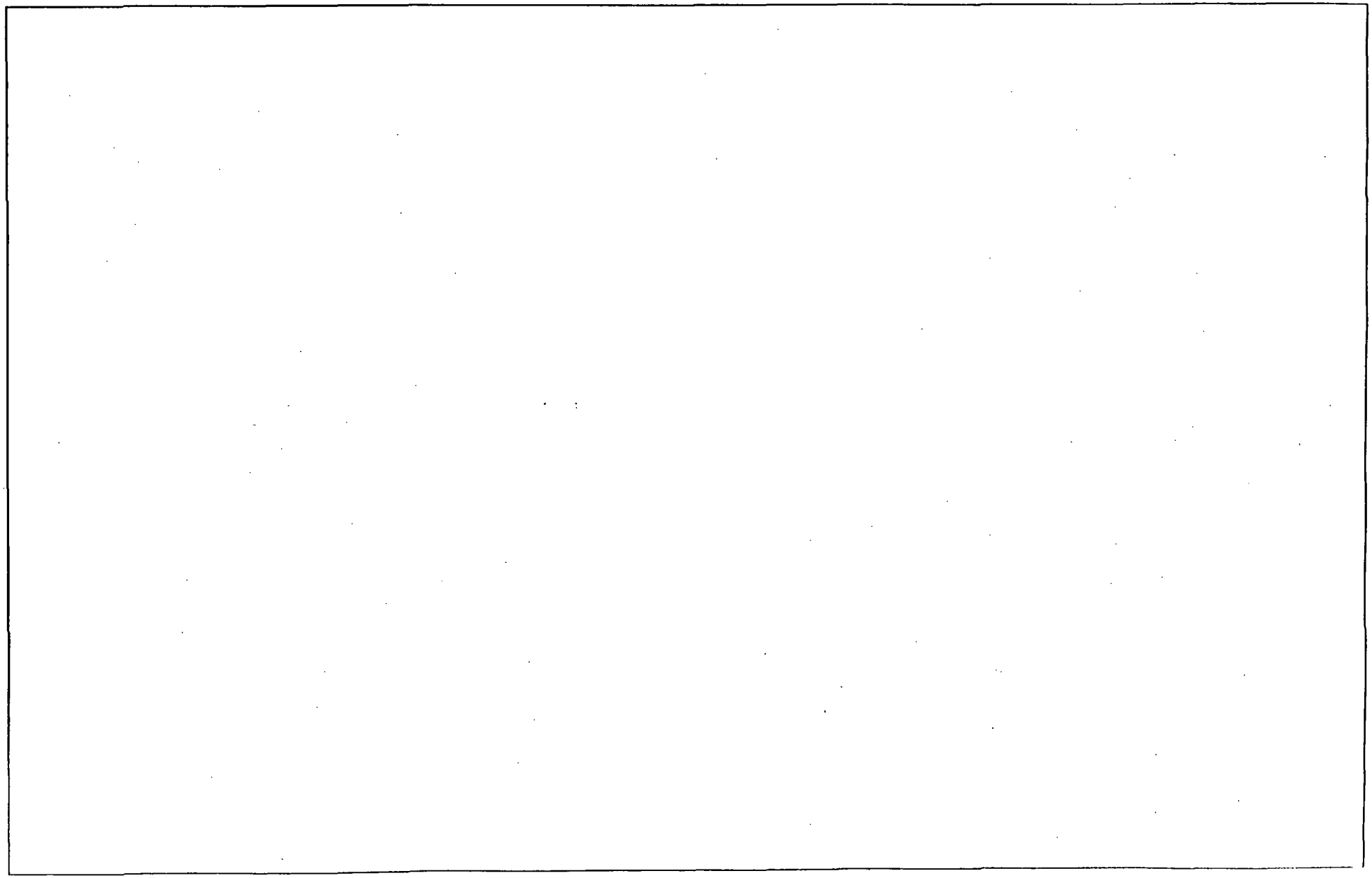
A. What we would do is go out to the site, collect soil vapor samples from various points on the property, take them back on site where we had a portable gas chromatograph running on site and analyze those soil vapor samples.

Q. How do you collect the samples?

A. What we do is we have what's called an impacto tool and it's probably quarter-inch to three-eighths-inch diameter steel rod and you slam it into the earth to open a hole. Then you insert a soil vapor point into the hole, which is a hollow stainless steel point which has a tip on the end which has holes in it, and then what you do is you seal at the surface around the soil vapor point with clay to prevent any vapors or air from the outside from getting into the hole. Then you connect the soil vapor point with teflon tubing to an air pump which then draws air from the soil vapor into your collection sample bag.

Q. Which consists of what? What's the collection sample bag?
A. It's a Tedlar bag.
Q. Then what happens?
A. Then you take it to be analyzed.
Q. Would you do an on-the-spot analysis as well?
A. How we collected the sample, we used a photo ionization detector. I believe in general those types of detectors do not pick up chlorinated solvents. I believe they will give a slight reading for carbon tetrachloride so we might detect readings through that.
Q. What do you do if you detected readings? Do you make a report of these?
A. You'd note it on the sample bag.
Q. You wouldn't make a record in your logbook?
A. Yes, in general we would.
Q. Go ahead. Continue.
A. Then we take it to be analyzed.
Q. Again, who would do the analysis?
A. The chemist that we had on site.
Q. Would they go to any other lab like GTEL?
A. No.

Q. What would he do with his findings or his report?
A. He would just note it in his logbook.
Q. Would they be sent back to the project manager?
A. Yes.
Q. What would the project manager then do with those records?
A. I'm sure relay the information to the project director or Conrail.
Q. To divert for a second. You are currently the project manager?
A. Uh-huh.
Q. When you see the reports come in or you see results come in, what do you do? Do you analyze them yourself and then call the project manager?
A. No, I see the results, contact the project coordinator and Conrail.
Q. Is there a report made of this? Is there a final report that deals with sampling?
A. Of which sample?
Q. The soil vapor sample.
A. No.
Q. No final report?
A. Not -- no.



Q. Is it included in any report?
A. No.
Q. What are the results used for? If they're negative results what happens next?
MR. ERMILIO: Can you rephrase that question? You're asking about negative results?
MR. RUVOLO: Ask him either way.
Q. When you see the results of the analysis what do you use those numbers for? If they're negative what does that tell you? When I say negative, they contain CCI.
MR. ERMILIO: You're asking for his conclusions based on the results?
Q. I'm asking what the next step would be. If you saw a sample result which showed CCI 4.
A. We relay the information.
Q. To the project coordinator?
A. Right.
Q. Would he make a report of your findings?
A. No.
Q. It sounds kind of silly, but what I'm trying to figure out is why gather this information? What is the purpose? What does it tell you?

A. It tells you the presence or absence of contaminants at that sample location.
Q. When you find that there is a presence, what's the next step?
A. We would inform the project coordinator and inform Conrail of the results.
Q. Do you make an attempt to remove the contaminant?
A. For soil vapor surveys?
Q. Uh-huh.
A. No.
Q. That's part of the remedial investigation? In other words, you're just doing an investigation to determine whether it's there or not?
A. Right, that's correct.
Q. Then later on down the road somebody decides it's there so we have to do something about it so this is what we'll do, correct?
A. Could be.
MR. ERMILIO: Peter, that's --
Q. On the right-hand side of the same page upper right there's a diagram. Explain that for us.
A. Looks to be a rough schematic of where we believed that their septic system was located at

the ASA Fiberglass facility.

Q. Where is that facility --

A. That is --

Q. -- located on the property?

A. I believe it's on the north -- excuse me -- the southwest corner of the property.

Q. Right underneath that it says northeast corner of finger system, Building 1. Is that reference to the diagram?

A. Yes.

Q. Then underneath that you said Bill McCaslin said it did rain on Saturday. What is the effect of the rain, if anything?

A. Could possibly cause your -- the soil in the area to be moist and maybe affect the ability of soil vapors to be drawn through the soil.

Q. So would that delay testing, if it rained?

A. Depend on how hard the rain was.

Q. Is there anything in the next page or two that shows when you did begin sampling again on that particular area?

A. I'm sorry. Could you restate that.

Q. My copy is very blurred and I'm sure yours is

too, but if you recall or if you want to consult the original if you've got it, is there any reference to when you began sampling after this rainy Saturday?

A. The left-hand column of the next page details the soil vapor points 3 through 6 that are noted on the previous diagram.

MR. RUVOLO: I'm sorry. Would you repeat that.

(Reporter read previous answer.)

Q. It merely says that it rained on Saturday. Wouldn't you -- is there a reference in your logbook or is it normal to put a reference in your logbook as to why you delay testing or that you delayed testing because of the rain?

A. I don't believe that we did delay testing.

Q. If you had, would you have made an entry in your log?

A. Yes.

Q. The following page 20809 is another diagram. Can you tell us what that is?

A. That is basically the entire facility detailing various buildings and locations of other soil

vapor points.

Q. Again, this is where on the property?

A. There is the whole property.

Q. The entire Conrail yard?

A. The entire ASA Fiberglass facility.

Q. And again, that is where on the property? In the northeast?

MR. ERMILIO: When you're saying on the property, do you mean on Conrail's property?

MR. RUVOLO: On Conrail's property.

A. It's on U.S. 33. It's toward the northwest.

Q. Is it on Conrail's property or is it off Conrail's property?

A. This is off Conrail's property.

Q. Why were you testing over there?

A. To determine presence or absence of carbon tetrachloride at this facility.

Q. Did you have any indication that there might be some there at that facility?

A. Prior to --

Q. The testing.

A. I believe that information was obtained from deposition statements from the owner of ASA

Fiberglass.

Q. Who is Chuck? He's referred to on the next page 20810 in the top right-hand side?

A. That would be Chuck Dittmar.

Q. What was his relationship?

A. He was the chemist that was performing the analysis of the soil vapor samples.

Q. Chemist for whom? For Conrail?

A. Groundwater Technology.

Q. Who was Bill McCaslin?

A. Bill McCaslin, I believe, is the owner of ASA Fiberglass.

Q. Referring to the upper right-hand corner, drop off vapor sample Chuck and leave to gauge -- what's the following word?

A. Nappanee. That's another site that we have.

Q. Where is that site?

A. It's in Nappanee, Indiana.

Q. Is it part -- does it have any relation to the Conrail property?

A. Unrelated.

Q. Turning to page 20811, again it's kind of blurry, but down at the bottom in the lower left it says

change Teflon and Tygone today. Recalibrate to zero, and I can't read the rest.

A. Yes. What's the question?

Q. What does that refer to?

A. That's referring to the beginning of each day ccalibrating the photo ionization detector and change the teflon tubing.

Q. How often do you say that is done?

A. I believe it was at least once a day.

Q. Are there any other prior references to that in your logbook?

A. I do not know.

Q. Maybe when we take a break you can take a look and see if there are any. If I recall, that's the first reference that I've seen. On C0 20812 is another diagram. Can you tell us what that refers to?

A. I believe this is the north side of the property.

Q. Is it on the property?

A. Yes.

Q. It says warehouse.

A. Yeah, it's the main -- the largest building on the facility. It's a schematic showing where we

collected soil vapor samples behind or to the north of the main warehouse building.

MR. ERMILIO: Peter, can you define what you mean by property.

MR. RUVOLO: I'm talking about the Conrail property. When we go off site, I'll refer to it as off site.

MR. ERMILIO: I think this is a misunderstanding.

A. This is not Conrail property.

Q. Where is this?

A. This is ASA Fiberglass.

Q. What does ASA Fiberglass have to do with either the diesel investigation or the Track 69 investigation?

A. There may be a contributing source to contamination in the area at that facility.

Q. Did your tests indicate that?

MR. ERMILIO: I'll let you discuss the results of your test but not an opinion as to whether there's a source at that property.

Q. What were the results of your testing?

A. The results were very low levels of carbon at the

time detected in a few samples.

Q. Can you tell from this diagram how many samplings you did on that -- around that warehouse?

A. Just to the north side or on the whole facility?

Q. On the whole facility.

A. I believe we did 19 or 20. I'd have to look at a map generated of the facility to confirm that.

Q. Again, which investigation was this pertaining to? The diesel or an independent?

A. This would be part of the Phase II Track 69 investigation.

Q. There is no date in the book. Can you give us the approximate time?

A. Of this soil vapor survey here?

Q. Yes.

A. That would have been October of '91. I believe it was 9/30 and 10/1 of 1991.

Q. Turn to page CO 20817. Which brings us to sometime in 1992; is that correct?

A. Yes.

Q. About the middle of the page it says leave to finish sampling between Track 63 and 64. What was the relevance of that?

A. That was part of the soil vapor survey we conducted in the southwest area of the main classification yard.

Q. I presume 64 and 64 which is four or five tracks away from Track 69?

A. Yes.

Q. The following page indicates at the bottom on the lower left-hand side on January of 29th of '92 that you were going also do some sampling on Track 70 and 71?

A. Uh-huh.

Q. Would you tell us what the results of those samplings were?

A. Of that entire soil vapor survey?

Q. Uh-huh.

A. I believe we found TCE in the area of the west end between Track 64 and 65. I believe it was in the area of EPA lead screen auger boring 29 or 30. I can't remember which one. TCE was detected at approximately one thousand milligrams per cubic meter.

Q. Will you turn to page C0 20824, January 31st. Is that the correct date? It says January 31,

1991.

A. That should probably be '92.

Q. The second entry eight to nine o'clock is confer with Chuck Dittmar and Rita Boje concerning placement of 20 extra soil vapor points and discuss investigative clear route areas and drainage --

A. Ponds.

Q. -- pond to south. What was that all about?

A. As part of the methodology initially we set up a grid pattern. I believe it was 50-point grid. We would complete that grid but also reserve extra points to delineate any areas of positive response or other areas we might feel of concern.

Q. When you say positive response, what are you referring to?

A. When we detect TCE.

Q. Is that all you detected TCE at this point?

A. I believe so.

Q. And you -- were you the one that wanted the 20 extra soil vapor points? Was that your request?

A. No.

Q. Whose idea was that?

A. That was in the proposal for the work.
Q. Were they put in?
A. Yes.
Q. Reference at 9:30 drove to the pond or drove to pond and find discharge pit. What was that discharge used for?
A. I believe at the car cleanout area there is a line that I assume for surface drainage water to run into and discharge to the -- this pond to the south of the area.
Q. Did you do any sampling in that area?
A. I believe I took two soil vapor samples in that area.
Q. Do you recall what the results were?
A. I believe they were non-detect.
Q. On the right-hand side there's reference to Eric Henderson?
A. I believe so.
Q. What was his responsibility? Who was he?
A. He was a new field technician who was assisting me in the soil vapor survey.
Q. And when did he come on board?
A. I can't recall.

Q. And he also completed a field survey book, field book?
A. Yes.
Q. He kept a field book as well?
A. Yes.
Q. Does everybody that was on the -- strike that. Who else besides yourself and Eric Henderson did some sampling work out there?
A. During this investigation?
Q. Yeah. Let's talk about the first one, the diesel one.
A. Ken Coad.
Q. How do you smell that?
A. C-o-a-d. Matt Darney. At various times we've had numerous field technicians if we needed them to go out to the site. I'm not sure I can recall all of their names.
Q. How about the Track 69 investigation?
A. Primarily myself, Matt Manka, Ben Claybaugh, Eric Henderson. You're asking for people assisting in sampling?
Q. Yeah, who were out in the field doing the actually sampling work.

A. Mike Barnes. I believe that's all.
Q. Are these people still with GTI, Barnes, Henderson?
A. No.
Q. Who are still with GTI?
A. I believe Ken Coad is.
Q. Do they all keep field books?
A. Yes.
Q. Did they all turn in field books when they left GTI?
A. Yes.
Q. Does your company keep a folder on these field books or keep them in a file?
A. Yes.
Q. Turning to page 20826, 8:30 on the left-hand side dated March 23, '92. Lowe Construction arrives. What was that about?
A. This is in regards to the diesel investigation.
Q. What was their purpose?
A. We were installing a remediation system at the diesel shop. They were the contractors that were to install a carrier pipe beneath the eastbound departure yard. They were bore and jack

contractors.

Q. Whose decision was it to install this system?

A. Combination of Dave Arnold, Rita Boje and Conrail.

Q. What was the purpose of this system?

A. Remediation of the diesel fuel in the subsurface at the diesel shop.

Q. What did the remediation process entail?

A. Dual pumping systems, water pumps to draw down the water table, create cones of depression into which the diesel fuel would be captured and then pumped out with a separate diesel fuel pump.

Q. Was sampling done at the diesel fuel to be pumped out? Was it done on the fuel itself?

A. Sampling of the fuel?

Q. Uh-huh.

A. No.

Q. Any testing of it?

A. No.

Q. Sampling of ground after it had been pumped out?

A. No.

Q. What kind of sampling, if any, was done?

A. During installation of the remediation systems?

Q. With the matter that was being removed was any sampling or analysis done of that?
A. No.
Q. The analysis on the sampling had been done prior to that. Is that the reason?
A. Yes.
Q. And you knew what the results were?
A. Right.
Q. And this was the process for removing it?
A. Right.
Q. Also makes reference on the right-hand side to North American. What was North American?
A. They were the other contractor that was involved in the trenching activities.
Q. At the lower right on this page three o'clock it says Lowe Construction finishes pushing casing.
A. Uh-huh.
Q. North American digs out leaders, end of casing to retrieve auger bit that was lost in casing.
A. Uh-huh.
Q. What does that refer to?
A. The bore and jack basically entails horizontal drilling and they send in an auger bit

horizontally into the earth, and as the auger drills a bore hole, they then push the casing along behind the auger bit and that's how they advance the casing. Apparently the auger head broke off inside the casing and the end of the casing had to be excavated and the auger bit retrieved apparently.

Q. Next page 20827 on the right-hand side. 9/13 or 4/13, which is it?

A. Looks like 4/13.

Q. 4/13/92 at 3:15. We have a lot of things to do but I won't go through each of them. What did you mean by No. 2, assess conditions of on-site EPA wells and picture?

A. Simply go around, check the condition of EPA monitoring wells and collect pictures.

Q. When you say check the condition, do you mean do you take any samples or do you look at the outside?

A. Look at the outside.

Q. What was the purpose of that?

A. Just to assess the condition.

Q. And you took pictures of --

A. Yes.
Q. Do you know where those pictures are?
A. Yes, they're here in our office in the files.
Q. Did you make a report on the condition?
A. No.
Q. Just the pictures themselves?
A. That's correct.
MR. ERMILIO: Is this in connection with diesel or --
Q. That's the question. Where were these wells located?
A. They're primarily EPA wells installed during their Phase I and II remedial investigations.
MR. RUVOLO: Just as an aside, Jim, do we have those pictures? Were they sent to us?
MR. ERMILIO: We assume so. I'd have to confirm it, but off the top of my head I cannot tell you yes or no.
MR. RUVOLO: If we don't, may we?
MR. ERMILIO: Absolutely. We'll talk about it later when I check.
Q. No. 3 is pull water/product hoses for diesel installation. What does that refer to?

A. These are hoses that have been connecting the recovery wells to the recovery compound. We had to pull them through the raceways that were installed within the trenches.

Q. What were they doing?

A. Pardon me.

Q. What would they accomplish, the hoses? What was their purpose?

A. That's what you would pump the groundwater and diesel fuel through.

Q. Collect bio samples. What does that refer to?

A. That was, as I recall, a side issue concerning collecting surface samples that may have -- actually it wasn't in relationship to the diesel shop investigation or the EPA or the Track 69 investigation.

Q. What was it in reference to?

A. I believe it was with reference to throughout the yard they have retarders that slow trains down as they go down into the main classification yard, and they're self-oiling retarders, and as they self oil I believe some of the oil can get onto the surface soils, and I believe Conrail was

interested in investigating a method of bio treatment to spray onto the surface to remediate any oils that might have gotten on the surface.

Q. When you say bio treatment, what does that mean?

A. Using organisms or biological organisms to degrade or consume the contaminant.

Q. How many samples were taken of the retarders -- in the area where the retarders were?

A. It was never done.

Q. So what is the meaning of collect bio samples?

A. I think at that time we were planning to do but subsequently it was decided against.

Q. Did you take soil samples from the area where the retarders were?

A. No.

Q. No. 5, collect lab samples for diesel soil and 16 or something to the right. I can't read it. what does that refer to?

A. That was with reference to during the installation of the remediation system it generated soils that contained diesel fuel. At that time there was interest in the technology called soil washing or soil washing machine that

could be utilized to remediate the soil, and there were going to be lab samples collected for bench testing to see how -- if that would be a technology that could be used.

Q. What happened with the samples?

A. The samples were never collected.

Q. They were never collected. The process was never --

A. Right.

Q. No. 6, fix confined space entry and something at manholes, leaks at manholes. What does that refer to?

A. Confined space entry, that may have just been a permitting issue. When there's a confined space you should have a confined space entry permit as well, as some of the concrete boxes that were installed, subgrade boxes or well volts that were installed groundwater was seeping into them.

Q. What reference -- which investigation did this have to do with?

A. This is all diesel shop investigation.

Q. What would be the effect of the leaks in the manholes on your sampling, for example?

A. It would -- if you ever had to get into the well vault and do any repairs and what not and obviously the leaks and the water would pose a problem each time. So if you can fix the leaks, you don't have to worry about those problems.

Q. Is there any problems with dilution?

A. Pardon me.

Q. Any problems with dilution?

A. I'm not following you.

Q. Having an effect on your sampling? In other words, the leaks coming in from the manholes the water would dilute?

A. Samples would not be collected from these.

Q. Not from these areas?

A. Huh-uh.

Q. Next page 20828 dated April 15, 1992. 12:15 to 2:15. Go to trailer and clean out debris. Find soil and water samples that need to be put into barrels. What does that refer to?

A. During the Phase I and II Track 69 investigation when we would take soil samples to the trailer to be analyzed by the gas chromatograph naturally we would generate small amounts of soil and water

that would have to be put into barrels for subsequent disposal.

Q. Where would they be disposed?

A. Along with the other soil and groundwater what was generated during the investigations.

Q. And the next sentence is pop, is it, all soil vapor sample bags and throw into dumpster?

A. Uh-huh.

Q. Is that what you meant by disposal?

A. Yes, for the tedlar bags, yes.

Q. Would the soil and water samples be in those bags or would they be in the barrels?

A. They would be in barrels.

Q. So this would just refer to the bags in which they had been contained, the soil and water samples?

A. No, soil vapor.

Q. Soil vapor samples. 20829, don't see a particular date on it, but on the upper left-hand corner assess EPA wells. What's that number? A telephone number?

A. Yeah.

Q. What do you mean by assess EPA wells?

A. What I said before. Just go out and visually check them.

Q. Could you tell us where -- is there any reference to where these wells were located?

A. They're across the site.

Q. Do you know how many wells there were out there?

A. I could hazard a guess. Probably around fifty. That's total throughout the area. Actually on-site fifteen, twenty possibly. I'm guessing.

Q. MW-34 right underneath that, does that refer to the EPA well?

A. Yes.

Q. Flush mount locking cup?

A. Cap.

Q. Cemented around riser, good shape, soft cut, TOC and you took a photo?

A. Uh-huh.

Q. The next one MW-30, good shape and you took another photo and so forth. But you took photos of all those wells, correct?

A. Uh-huh.

Q. Do you have those photos?

A. Yes.

MR. RUVOLO: Have we gotten those photos?

MR. ERMILIO: Like I said before, I will check. I have a means of checking. If you want to take a break, I can do that now.

MR. RUVOLO: Two more minutes and take a break. I think I'm just about finished with this.

Q. Is that okay with you?

A. That's fine.

Q. 20831, which I believe is 4/16/92 on the left-hand side at the 12:45 to 1:15 entry. Talk with Rita whom?

A. That would be Rita Boje.

Q. I guess it's ballast and soil samples and soil vapor survey report?

A. Uh-huh.

Q. Who has that or what was the soil vapor survey report? Is that something you did?

A. I believe that would be referring to the soil vapor survey in the southwest area of the Track 69 -- or of the main classification yard, and that was a report that I was involved in generating.

Q. Who was the report for?
A. Conrail.
Q. Had you done the sampling or had you reviewed the sampling that had been done before contributing to this report?
A. I participated in the sampling, yes.
Q. Who got this report at Conrail? Do you know?
A. I assume Tom Pendergast received it.
MR. RUVOLO: Do we have a copy of that?
MR. ERMILIO: You do have a copy of that, yes.
Q. Then it says call Jeff Geary about collecting samples at the retarders. Does that refer back to what we talked about before where the retarding equipment was?
A. Yes.
Q. Were samples taken or were they not taken?
A. As I recall, samples were not taken.
Q. So when you say call Jeff Geary about collecting samples, what do you mean or what did you mean at that time?
A. Arrange a time when he could shut down the tracks so if I needed to collect samples I'd be able to

do so.

Q. Later that afternoon you talked to him and you couldn't do it at that time, correct? Bottom of the page left-hand side.

A. Yes, apparently.

Q. And you're telling us that they never were taken?

A. Yes, I don't believe they were.

MR. RUVOLO: Okay. Want to take a break?

MR. ERMILIO: Couple minutes.

(Short break taken.)

(Plaintiff's Exhibit 3 marked for identification.)

Q. (Mr. Ruvolo continuing) Mr. West, I show you Exhibit 3 for identification. As you can see, it's a package, and in the interest of saving time, I'm introducing the whole package, but we won't go through them one by one, I promise. They're all drilling log reports, if you'd like to look through them, and I think they were all logged by you; is that correct?

A. Yes, that's what it says on the page.

Q. And they were all sketched by you; is that correct?

A. That's what it states on the page.
Q. So I get an understanding what these represent. Let's take it step by step and see what everything means. It says project, Consolidated Rail Corporation, Elkhart, Indiana, Project No. 040209207-0101. That's the whole project? Does that refer to the whole project, that number, that project number?
A. The project number refers to the whole project. The hyphenated number at the end refers to a specific task.
Q. These all refer -- all have the same number at the end, 0101; is that correct?
A. Yes.
Q. What was that specific reference to?
A. 0101, that would have to do with the Track 69 investigation.
Q. So these would all have to do with the Track 69 investigation -- and other tracks? You just didn't sample at 69; you sampled at other tracks?
A. That's correct.
Q. But it all has to do with that same investigation?

A. That's correct.
Q. I take it the boring No. B-6 refers to a boring number that you numbered B-6, correct?
A. Yes.
Q. Then there was a date it was drilled and the total depth, which was ten feet in the instance of page one, and a diameter of eight inches. Who chose the depth?
A. That was based on a field call by Rita Boje and Dave Arnold.
Q. Did you have any input into that?
A. Yes.
Q. Pardon me?
A. Yes, I did.
Q. That would be what you would call the shallow?
A. It was not a well. This was just a boring.
Q. What is the purpose of the boring?
A. The boring was for the purpose of assessing subsurface characteristics.
Q. Such as --
A. In terms of soil type as well as sampling for soil contamination.
Q. How would the sampling be done?

A. During the drilling of a bore hole split spoons would be collected continuously throughout the entire bore hole, and from the split spoons we would collect a soil sample and submit it for analysis on site by the field gas chromatograph.

Q. What do you mean by split spoon?

A. The split spoon, as they drill down they drive what is called the split spoon beyond the drill bit to obtain a sample of undisturbed soil, and you bring it up and you split it open and you can describe the soil type and collect a sample.

Q. What would be done with the sample, the actual physical sample that you took up? What would you do with that?

A. After the sample was collected for GC analysis, then it would be put into a barrel for subsequent disposal.

Q. Put into a barrel?

A. Yeah.

Q. And testing would be done on the spot?

A. It would be done on site by the gas chromatograph.

Q. Does this re -- hold that for a second. The

fourth line it says initial water depth 5.5, five feet five inches?

A. Yes.

Q. What does this that refer to?

A. That's where we encountered groundwater.

Q. You continued drilling beyond that to a depth of another four and a half feet?

A. That's correct.

Q. The drilling was done by Stearns Drilling; is that correct?

A. Uh-huh.

Q. Who retained Stearns Drilling?

A. Pardon me.

Q. Who retained or who hired Stearns Drilling?

A. Groundwater Technology.

Q. And the drilling method was the hollow-stem auger. Would you describe that for us?

A. The hollow-stem auger is a basically a hollow tube with flanges wrapped around it. Somewhat like a big screw, and there's a drill bit on the end and you drill with the hollow stem auger, and because it's hollow you can then proceed to put your split spoon down and collect samples as you

go.

Q. Up in the upper right-hand corner there's a diagram which I take it refers to various borings that were taken in the area; is that correct?

A. That's correct.

Q. In the Track 65 -- between 64 and 65 were there three borings taken?

A. Yes.

Q. And does that number next to them refer to the depth, 75?

A. No, that's the distance apart.

Q. Apart from each other?

A. Yes.

Q. Those borings were taken between those two tracks; is that correct?

A. That's correct.

Q. And then am I correct that there were also three borings -- there were two other borings taken in the north-south direction from Track -- from between Track 46 and 65 down to Track 72 and a half, 73?

A. Yes.

Q. And then there were also borings taken on the

left-hand side BMW between 68 and 69?

A. That's correct.

Q. And two between 69 and 70?

A. That's correct.

Q. Who made the decision as to where these borings would be placed?

A. The general location of the borings was put forth in the proposal for the Phase I investigation. Actual placement in the field could have been modified based on results achieved from the field gas chromatograph, and those decisions would be made by Rita, Dave.

Q. Is there any particular reason for the spacing between the borings?

A. The spacing between them?

Q. Uh-huh. In the top set going across east to west there's one 75 feet from another, then 112 feet before you hit the next. When you get down around 68, 69 there's a space of 132, 76, 73. There's a big difference in space distance.

A. In general they were -- again, I say they were set forth in the proposals to what the spacing would be, but in general they were zeroing in

where we believed the center of the source area based on the soil vapor survey was. Then borings would be placed in a grid type pattern radiating outward, and then based on the results between individual borings, the other borings would be placed.

Q. The second bottom two thirds of the page there's another diagram on the right-hand side is a description/soil classification, the color, texture and structure, correct?

A. Yes, that's correct.

Q. Then the last section in the other right-hand corner it says EOB at ten feet?

A. Yes.

Q. What does that mean?

A. End of boring.

Q. Can you tell us from this document what the results of the testing of the borings turned out to be?

A. If you look in the GC/MS column, it designates soil samples were collected and in some instances what the results were. Doesn't show all of the results.

Q. Why doesn't it show all the results?
A. I believe these are draft drilling logs.
Q. Were the reports that were taken immediately after the testing, were they kept? In other words, did you review the reports of the testing from these borings and then make out this chart and then what the findings were?
A. Yes.
Q. Does GTI still have the results of those boring tests?
A. Yes.
Q. The second page CO 19600 also refers to the same area, the same borings; is that correct?
A. Yes.
Q. Is there a specific one that was taken? In other words, this is BMW-5D?
A. Yes.
Q. This was to a depth of 100 feet; is that correct?
A. Yes.
Q. It's not on the same day, February 26, 1991?
A. Yes, that would have been the starting date.
Q. The water level -- the initial water depth, I should say, was approximately the same, six feet?

A. Yes.
Q. You said before that you believed they were drafts reports?
A. Yes.
Q. Is there any indication or any reference to those drafts in this set of diagrams or reports?
A. No. There's one on C0 19615.
MR. ERMILIO: You're referring to the Bates number?
THE WITNESS: Yes, 19615.
Q. Where would the reference be on that page?
A. Top right hand.
Q. Draft?
A. Yes.
Q. Were logs or final bore logs collected at the end? Is there a final report or is this the report? Are these the boring reports?
A. These are the present boring logs, yes.
Q. Are there any others that you know of?
A. There are others.
Q. -- with regard to these areas?
A. For different borings?
Q. Uh-huh.

A. Yes. I don't believe this contains all the borings.

Q. Do you know how many borings you made?

A. I think during Phase I there were eleven borings and with Phase II I think the total number increased to 24.

MR. RUVOLO: Do we have those?

MR. ERMILIO: It's my understanding you have all the boring logs. Once again, I can confirm that if you'd like.

MR. RUVOLO: Appreciate it.

MR. ERMILIO: It's my understanding they were all produced.

Q. The first -- from 19599 through 19603 all refer to this particular area that's depicted in the upper right-hand corner which is between Track 64 and 73 roughly?

A. Yes.

Q. Those are the borings that were taken in that area?

A. Correct.

Q. There's a footnote to that log up above, the X GC/MS sample location?

A. Yes.
Q. Where is the X?
A. I'm sorry. Can you repeat that again? Are you talking about the --
Q. Little note underneath the box up on the right-hand corner.
A. I see. What's the question?
Q. What does the X refer to?
A. Look for the X on the boring log and you'll see where the sample location was, the sample depth.
Q. Is there an X on the log is my question?
A. If you'll look, you'll see the graphics display of the log. Look to the left column GC/MS to the left of graphic log. You'll see X's.
Q. I see. What do the X's connotate on this? Just using this first sheet.
A. The depth at which the sample is checked. If you'll look across the left you'll see the depth.
Q. At six feet it shows under that column GC/MS (ppm) 17.0. What does that refer to?
A. That was the level of carbon tetrachloride detected in the soil sample collected at six feet.

Q. That would be 17 parts per billion?
A. Per million.
Q. The next set which is pages 19604 through 10607 refer to a different area; is that correct?
A. Yes.
Q. That is a diagram in the east end of the yard?
A. Yes.
Q. Near the control tower?
A. Yes.
Q. And this was done on the other side of the north access road; is that correct?
A. That's correct.
Q. The northern side?
A. Yes.
Q. This was an RMW boring?
A. Yes.
Q. What was the purpose of that?
A. RMW-2D was a deep well installed in this area to determine the presence or absence of carbon tetrachloride in soil at this location.
Q. Were you looking for anything other than carbon tetrachloride?
A. I belive we analyzed for TC as well.

Q. Am I correct two borings in that area?
A. Yes, RMW-2 was actually installed during the remedial investigation in '89 and RMW-2D was installed during the Track 69 investigation.
Q. Turning to 19608, these were drilling with boring No. B-7?
A. Yes.
Q. And this goes back to the other area between Track 64 and Track 73?
A. That's correct.
Q. That we referred to before. Underneath notes about six feet down is an upside down triangle. What does that refer to?
A. That denotes where groundwater was initially encountered.
Q. Then there were various markings at two feet; is that correct? Is that 5.7?
A. Yes.
Q. Parts per million?
A. That would be parts per billion. If you'll look in the notes underneath the figure.
Q. I see. Underneath the chart. That was carbon tetrachloride?

A. Yes.
Q. Then there was 10.4 parts at four feet; is that correct?
A. That is correct.
Q. And 46.1 parts at six feet?
A. That's correct.
Q. And ten parts at ten feet?
A. Yes.
Q. 210 parts at fifteen feet?
A. That would be parts per million.
Q. And 149, is that parts per million or billion?
A. Yes.
Q. Per million?
A. Yes.
Q. At 20 feet and so forth. B-7 is the boring that was taken between Track 64 and 65?
A. Yes.
Q. What is the difference -- I'm sorry. Page 19609 is further depth; is that correct?
A. Yes.
Q. Would it be fair to say that the depth -- the carbon tetrachloride was found all the way down up through 60 feet at various parts?

A. That's correct.
Q. 19611 and 19612 refer to Boring B-2; is that correct?
A. Yes.
Q. That was between Track 69 and 70; is that correct?
A. That's correct.
Q. And this was drilled in March of '91?
A. Yes.
Q. Thirty-six feet?
A. Yes.
Q. Same method, split-spoon method?
A. Correct.
Q. Here would the parts be per million or per billion? You got at 18 feet 4.8?
A. That would be per million.
Q. And you got it at 20 feet at 11.3?
A. Uh-huh.
Q. And 24 feet, 113?
A. That may be a asterisk above the 113. I have to verify that.
Q. What would that indicate?
A. That would be parts per billion rather than parts

per million.

Q. 19613 and 19614 refer to Boring B-3; is that correct?

A. Yes.

Q. B-3 is located down below Track 72 between 72 and a half and 73, if there is one?

A. Correct.

Q. Depth is 36 feet, same method, and it was found at six feet would that be parts per billion?

A. Yes.

Q. Thirty-four parts per million?

A. Per billion.

Q. 19615 refers to Boring B-1, correct?

A. Yes.

Q. Which would be at the eastern end of Track 69?

A. Yes.

Q. 19616 refers to a different area between Track 54 and 55 you took Boring BMW-4D?

A. Yes.

Q. Why was that chosen?

A. That was down gradient of the Track 69 area. That was identified in the soil vapor survey.

Q. That would be west of the classification yard?

A. That would be in the west end of the classification yard.
Q. Roughly how far from the car shop? Any indication?
A. Not on that diagram there's no indication, but I would estimate 1,500 feet.
Q. So it's somewhat near the retarder tower? Would that have anything to do with the retarder testing?
A. No.
Q. Next page is in reference roughly to the same area, same with 19618 and 19619, correct?
A. Yes.
Q. According to these records, there was no detection in that area; is that correct?
A. Of BMW-4?
Q. Yeah.
A. Yes.
Q. 19620 and 19621 refer to Boring B-4 which is between Track -- it's on the eastern end of the sampling box between Track 64 and 65?
A. That's correct.
Q. This goes to a depth of 36 feet and you found

parts at 15 feet. These are all parts per billion because of the asterisk?

A. That's correct.

Q. 17 feet, 19 feet, correct?

A. Yes.

Q. The last of this group is Boring B-8 which would be again between Track 64 and 65 only the western end as far as this diagram is concerned?

A. That's correct.

Q. Going back one second. Both those borings were to 86 feet; is that correct?

A. Both of --

Q. The one previous that we referred to BMW-4D.

A. BMW-4D was to 85. BMW-8 --

Q. Is to 86?

A. Yes.

Q. Looks like three hundred parts per million?

A. Yes.

Q. At 14 and a half feet, and then there's two X's and then 55 parts per million. What does the two X's mean?

A. The 300 goes with the first X and the 55 goes with the bottom X.

Q. Then there was found again at 20 feet 120 parts?
A. Yes.
Q. As well as 30 feet the same. That's parts per billion?
A. Correct.
Q. And 260 parts per billion at 40 feet?
A. Yes.
Q. And eleven parts per billion at 50 feet?
A. Yes.
Q. How far distance-wise was Boring B-8 from Boring B-4?
A. 112 feet plus 75 feet.
Q. And they're both between Track 64 and 65?
A. Correct.
Q. Last not but not least. 19624 and 19625 also refer to that same B-8?
A. Yes.
Q. Just continuing down further. There were traces found as far down as 85 feet; is that correct?
A. That's correct.
Q. That would all be carbon tetrachloride?
A. Yes.
Q. Again, I show you --

MR. RUVOLO: Would you mark that.

(Plaintiff's Exhibit 4 marked for identification.)

Q. I'm going to show you Plaintiff's Exhibit 4 for identification and ask if you can identify or tell us what that's all about.

A. It's a summary sheet summarizing depths to water measurements collected in Groundwater Technology monitoring wells.

Q. This is -- you were the operator on this?

A. Yes.

Q. Is there a relationship between these and the drilling logs we just talked about?

A. I believe BMW-4 was in the group that we just looked at, Exhibit 3, which is also on this page.

Q. There's a whole slough on the left-hand side well ID. It's a column of roughly 25 different wells. Were boring records kept -- logs kept of each of those wells?

A. Yes.

MR. RUVOLO: Do we have them all, Jim?

MR. ERMILIO: I believe you do have them all. I'll confirm that for you. Once again,

it's my understanding all those were produced to you.

Q. There's a different project number on this one. The front part is the same but there's no 0101 at the end of it. Does that have any meaning?

A. No.

Q. Still part of the same?

A. Correct.

Q. Would you just explain for me what the various headings mean?

A. The well ID is the identification of each monitoring well. The next column is the top of casing elevation. The next column is depth to screen. Actually the depth to the top of the screen. Next column is depth to water below the top of casing. Next column would be depth to product.

Q. What do you mean when you say product?

A. This sheet is also used if you were gauging diesel shop wells and they had diesel fuel in them. Your interface probe would read initially the product level, and then as it got through the product it would read the depth to water, and

then the remaining columns show what the thickness of the product would be and then you would by knowing the specific gravity, you could correct for the true depth of water, and finally the right-hand column gives the corrected groundwater elevation.

Q. What was the purpose for checking this data? Was this -- did this have to do with the diesel oil investigation or was this connected with the Track 69 investigation?

A. This was the Track 69 investigation.

Q. In that instance what would the product be that you were looking for?

A. Chlorinated solvents.

Q. Chlorinated solvents. Whereas with the diesel area you would have been looking for fuel oil?

A. That's correct.

Q. Can you tell us why you were looking for chlorinated solvents?

A. Actually we were really just looking for depth to water.

Q. When you say TOC, is that elevation from sea level or is that --

A. Yes.
Q. With RMW-1 it was 743.68 feet casing was from sea level?
A. Yes.
Q. What is the screen, depth to screen? What does the screen refer to?
A. The screened interval of the well, the depth at which it sat, and the screen in each of these instances is a ten-foot length screen. So for instance, RMW-1 would be screen from 9.3 to 19.3 feet below grade.

(Plaintiff's Exhibit 5 marked for identification.)

Q. Show you Exhibit 5 for identification, Mr. West. If you would -- let's do a couple pages at a time. 06954, 5, 6, 7, and 8.

MR. FREEMAN: Can you give us the Bates range for the entire exhibit?

MR. RUVOLO: 06594 through 06975.

Q. Tell us what they refer to, sir.
A. These are the soil sample results from borings installed during the Phase I Track 69 investigation.

Q. What do the columns indicate?
A. Left column indicates the sample -- the boring from which the sample was collected and the depth at which the sample was collected. The middle column indicates the concentration of carbon tetrachloride detected by the gas chromatograph. The right-hand column indicates the concentration of TCE detected by the gas chromatograph.
Q. When you say gas chromatograph, was that taken right at the site right after you took the sample?
A. The analyses were performed on site.
Q. It notes that this was taken between February 26th and March 21st of 1991?
A. Uh-huh.
Q. This refers back to the Boring B-9; is that correct?
A. On this page B-8, B-9.
Q. Initially the typed part or the printed part shows, for example, in the column on the right ND which means non-detected; is that correct?
A. Yes.
Q. Then there are handwritten notes that are put in

next to some of those where it shows PCE was detected, correct?

A. That's correct.

Q. Whose notes were they?

A. Chuck Dittmar.

Q. And the same for just the one addition to the middle column which was carbon tetrachloride, there was just one addition put in there at 6.5 feet; is that correct?

A. Yes.

Q. The next page is basically the same information, but it pertains to different borings B-5, B-6, B-7; is that correct?

A. That's correct.

Q. I believe they're all taken within the same time frame?

A. That's correct.

Q. On the third page 06957 there are handwritten numbers on the right. What do they refer to?

A. I believe that's the designation as to the number of soil samples collected from each boring.

Q. The next set which is 06959 through 06967, can you tell us what they are, sir?

A. They are the chromatograms and data files for samples collected.
Q. When you say data files, is that GTI's data files?
A. Yes.
Q. Go ahead. Would you tell us what they pertain to?
A. Yes. If you'll look on 06959 you can look up and the fourth line down you can see that that's the data file for the soil sample at 15 feet from Boring B-7.
Q. What does 3g/40 ml mean?
A. That must be the ratio of -- I'm not a chemist, but I'm assuming that has something to do with his analyze methodology.
Q. Who prepared this report?
A. It would be Chuck Dittmar as well.
Q. What was Chuck Dittmar's position?
A. He was the field chemist.
Q. He's the fella that would do the testing on the site?
A. That's correct.
Q. Would these be his notes?

A. Yes.
Q. Up on the right of the first -- fourth line there and then as well down at the lower left side is DF 3000 and down below it says dilution factor 3300. What does that refer to, if you know?
A. I'm sorry. Could you restate that again.
Q. What does the DF 3000 at the right-hand side of the fourth line refer to?
A. The dilution factor equals 3300.
Q. It says 3000 up there and then down below it says 3300.
A. I see. I would assume that means these diluted the sample to a point where he can now accurately quantify results down to but not below 3000 parts per billion.
Q. I'm interested if you can tell us what some of the penciled in comments refer to. For example, there's a checkmark next to CCI4 on the right-hand side.
A. I couldn't comment to what that means.
Q. You don't know what that 236687.13 refers to?
A. No.
Q. What is a CCI4 calibration?

A. Pardon me.
Q. It says estimated from carbon tetrachloride calibration. What does that refer to?
A. I believe for each carbon tetrachloride and TCE he has a standard that he prepares by which he can compare the chromatogram from a soil sample to the chromatogram of a sample, and if you know the concentration of your standard, then you can determine the concentration that's in your soil sample. I don't believe he did not have a standard for PCE in this case, but looking at their chromatograms, I believe he noticed a peak coming out that he couldn't identify because he did not have a standard, but it was his estimation that it was PCE, and based on carbon tetrachloride response with its standard, he could estimate the concentration of PCE as well.
Q. That ratio down at the bottom, does that refer to carbon tetrachloride, in other words, the 15516 divided by 52426 times 32 times 3000?
A. I would assume.
Q. So that it comes out to 28 parts per million. He was referring to carbon tetrachloride?

A. He was referring to an estimate value for PCE.
Q. Next is a diagram or graph chart. Can you tell us what that represents?
A. That's the chromatogram for, I'm assuming, the B-7 15-foot soil sample.
Q. Tell us what that indicates.
A. Well, I'm not really sure I could go into that. Obviously the numbers on the previous page describe the chromatogram or relate to the chromatogram to the extent where he can calculate concentrations of carbon tetrachloride and TCE.
Q. The next two pages are basically the same type of information, different area or different boring?
A. I can't comment because I don't see a boring or depth.
Q. Pages 09693 and 06964 refer to B-2, Boring B-2?
A. Yes, that's correct.
Q. 06965, 06966 refer to RMW-2S; is that correct?
A. Yes.
Q. Tell us where that well was.
A. That was to the northwest of the car shop area.
Q. According to page 06965, he found carbon tetrachloride, TCE and PCB?

A. And what?
Q. What was the last one?
A. PCE.
Q. Again, are these documents that we just talked about, they go into a report or into a file? In other words, what's the importance of these documents in this whole overall picture? They tell us that there's carbon tetrachloride and TCE, et cetera.

MR. ERMILIO: What do you mean by importance? Are you asking his opinion on how important they are versus other things?

Q. Yeah, how does this rate in regard to an overall understanding of the situation, if you know.

MR. ERMILIO: Before you answer that you need to clear that up if you're asking him for his opinion. If you're asking him what they are, he can tell you what they are and what other documents they go along with, but I'm not going to let him tell you these are the most important, these are the least important. That's for experts at a later date. That's not for him to decide.

Q. To reach an overall decision you have to have various parts that played a role in that decision. Where do these reports relate to some of the others that we've talked about this morning? What's the connection?

A. I'm confused as to what decision you're talking about.

MR. ERMILIO: That's vague. I don't understand the question.

Q. You're the geologist and you work for the company and you would understand more than I, I'm sure, as to what were the purposes for collecting this type of data. I'm wondering if you could tell us what the purpose was.

A. Simply to characterize the site.

Q. And that goes -- the same would be said for the other documents that we talked about this morning, for example, the monitering wells and the boring logs, et cetera?

A. That's correct.

Q. I take it what you're telling us when you say characterize the site, you mean to determine the presence or absence in various locations of

carbon tetrachloride, TCE and/or PCE?

A. That's correct.

Q. Were there any other chemicals or contaminants that you were looking for?

A. No.

Q. Was that part of the -- was just to concentrate on carbon tetrachloride and TCE?

A. That's correct.

Q. The next set of pages 06970 and 71 and 72 have to do with GTEL Laboratories. However, they have to do with sampling that I believe was taken by you. Could you take a look at those.

A. I don't have them.

Q. 06970 and the next two attached to Exhibit 5.

A. What's the question?

Q. You were the sampler at least in these two instances?

A. That's correct.

Q. This is part of the chain of title record?

A. Uh-huh.

Q. And it's an analysis request?

A. That's correct.

Q. They're both in regard to water and ice. Tell us

why that was chosen?

A. Which page are you on now?

Q. I'm looking at the two charts which are -- that are attached as 06971 and 72.

A. What's the question again?

Q. The matrix is water and the method preserved was ice. Is that in reference to how you kept the sample?

A. That's correct.

Q. What kind of an analysis were you requesting?

A. Iron bacteria on the first page. The second page looks like the same page to me.

Q. Where was this sampling taken from?

A. This was taken from a well that we had conducted a pump test on located northwest of the car shop area.

Q. So this had nothing to do with the Track 69 area?

A. It was a portion of the study of the Track 69 study to determine aquifer characteristics.

Q. What was the relevance of looking for an iron bacteria count?

A. These results were basically inorganic groundwater quality that could be useful in

remedial design, design of any remediation system to determine what effects the groundwater quality might have on the system design.

Q. This was back in October of '91, correct?

A. That's correct.

Q. The last three pages have to do with National Environmental Testing, Inc. Who were they and what was their relationship to this project?

A. They are another lab located in Indianapolis.

Q. Were they working on this project the same time as GTEL was?

A. No, this is the only time that they've been used for this project.

Q. Was to do an analytical report, correct?

A. Yes.

Q. And Ken Coad that's referred to, that's the gentleman you spoke about before as having done some sampling on the property?

A. I think the results went to him in error.

Q. The next page says it -- says should send it to you?

A. Yes.

Q. What was the purpose of this sampling in this

analysis?

A. Again, that was to determine inorganic groundwater quality.

Q. Where was it taken? Where was the sampling taken?

A. I'm sorry.

Q. Where on the property was the sampling taken?

A. That was at the pump test well again to the northwest of the car shop area.

Q. The result speaks for itself.

MR. RUVOLO: Want to take a break?

(Short break taken.)

(Plaintiff's Exhibit 6 marked for identification.)

Q. Show you Exhibit No. 6 and ask if you can identify that for us, Mr. West?

A. Yes, the proposal for the soil vapor survey in the southwest area of the main classification yard.

Q. Was this proposal prepared by yourself? The letter is signed by you. It's a letter to Mr. Pendergast, is it not?

A. That's correct.

Q. Was this document that's attached as well prepared by yourself?
A. Excuse me.
Q. Did you prepare the attached document that the letter refers to?
A. Yes.
Q. It refers to attachment as being a scope of work. How is that decided upon, what the scope of the work would be?
A. That would have been a combination of Dave Arnold's, Rita Boje's and mine and Conrail's input.
Q. At this point had you completed your sampling data or were you still doing sampling? This is in January of '92.
A. We completed the Phase II Track 69 investigation.
Q. Had you completed the diesel area investigation?
A. Yes.
Q. Why would you be doing a soil vapor survey at the west end at this time? In other words, what lead you to that conclusion?
A. This was based upon EPA's Phase II remedial investigation where they had detected TCE at the

west end of the class yard in their LSA borings, and this is in response to that.

Q. Had you done any boring work in that area of the yard prior to the EPA report?

A. I personally had not. I think one or two borings were done as part of the initial remedial investigation conducted by Groundwater Technology.

Q. It also refers to sampling the EPA monitoring wells. What was the purpose of that?

A. That would have been to get a complete or as much possible data of all the monitoring wells on site to have a complete picture of groundwater quality at the site.

Q. Who were the other employers that are cc'd on this letter, Phil Boxell? I know who Mr. Lambert is.

A. I believe Phil is an in-house attorney for Conrail.

Q. Paul Yaniga?

A. Paul was a vice-president and also a technical resource for the project.

Q. From GTI?

A. From Groundwater Technology. Dave Arnold was the project director and Jack Guswa is another consultant hired by Conrail.
Q. What was Guswa's connection? Why was he hired?
A. I'm not sure.
Q. He was not hired by GTI; he was hired by Conrail?
A. No, that's correct.
Q. As the report says in the scope part of the work, the idea was to identify the presence or absence of carbon tetrachloride and TCE in the subsurface, is that correct, at the western half of the classification yard?
A. Yes, that's correct.
Q. Attached to the last page is a map. Is there a -- tell us what that is, first, if you would.
A. A general map showing the areas where we would be proposing to take soil vapor samples.
Q. Is that referring to where you were proposing to take the samples or is that referring to -- the initial proposal was way back then to do the grid in this Track 69 area?
A. These are the proposed locations.
Q. Is there a reference to where these borings were

and what their numbers were?

A. In the final report it would show where we placed actual soil vapor points and their corresponding ID's.

Q. Where is that report? Do you have that report?

A. Yes, I have that report.

MR. ERMILIO: The report has been produced.

Q. Each of those black dots on the map, what do they represent?

A. The proposed soil vapor point location.

Q. Were all of those locations, were wells made in each of those locations?

A. In general, yes.

Q. Do they include just GTI's wells or do they include the EPA's wells?

A. These are just Groundwater Technology soil vapor point proposed locations.

Q. Just a rough count of that would be there would be about 60 of them. Were all 60 put in?

A. Yes.

Q. Did you monitor the results?

A. Yes.

Q. Tell us what the results were as far as finding carbon tetrachloride and TCE in the subsurface.

A. Carbon tetrachloride was found at low levels in numerous soil vapor points. TCE was also found in low levels in numerous points. TCE was found in one soil vapor point, I believe it was, close to EPA lead screen auger 29 at approximately a thousand milligrams per cubic meter.

Q. Were these taken at various depths?

A. They were all in general taken at the same depth.

Q. We went through some logging reports today and other reports and vapor surveys. Were they the ones that are referenced to this particular project?

A. Those were different soil vapor surveys than this.

Q. Do you have copies of the individual soil vapor surveys that were conducted as far as this project?

A. I'm not sure I understand.

Q. As far as these particular sixty odd --

MR. ERMILIO: Copies of the individual soil vapor surveys?

Q. Did you do a log on each one of those?
A. No, huh-uh.
Q. Where on this map would be the Track 69 area?
A. In general if you -- do you know what the main class yard is? Generally from here to here.
Q. So then where would these be as far as track numbers are concerned, if you know?
A. Track 69 would be in this group. They have nine groups of eight tracks each. So Track 69 would be in this group.
Q. Would you just take a pen and mark where Track 69 would be in red.
A. (Witness complied)
Q. Referring to Attachment A, were these vapor points put in all at the same time or was it a step-by-step kind of a thing?
A. It was a step-by-step one point after another.
Q. And you started between Track 63 and 64; is that correct?
A. That's correct.
Q. Where the EPA boring was LSA 29?
A. Uh-huh.
Q. Why was that location picked first?

A. Because that is where they had detected TCE in their Phase II investigation.
Q. Did your surveys also detect TCE in that area?
A. I believe --
MR. ERMILIO: You mean the surveys -- excuse me. The surveys prior to this investigation or including this?
Q. Including these. Once you started your surveys, did they confirm the TCE was in that location?
A. TCE was detected in soil vapor in this area.
Q. The following paragraph it says that the vapor samples were collected approximately three feet below the surface. Why was that decision made? Why three feet and not six, eight, ten?
A. General groundwater there is approximately ten feet below grade. If you go too deep, your readings can reflect groundwater contamination, and we were more interested in determining areas that would be primarily soil contamination.
Q. Was it your decision to make it three feet?
A. That was a group decision.
Q. The Microtip that's referred to in the following paragraph in dealing with the Tedlar bag, is that

what you described for us before?

A. Yes.

Q. That would enable you to do the analysis on site?

A. Not the Microtip. An on-site gas chromatograph would actually perform the analysis.

Q. Would the bags also be sent to a lab for analysis?

A. No.

Q. How long did this project continue?

A. I believe sampling activities lasted for -- it says in here. I believe it lasted for a couple days. I think we had a weekend break and came back and finished up on a Monday.

Q. How long did the whole operation take?

A. Approximately a week.

Q. And then the last line of that first page refers to a report including the methodologies, findings and recommendations made. Was there such a report prepared?

A. Yes.

MR. RUVOLO: Do we have a copy of that, Jim?

MR. ERMILIO: You should have.

(Plaintiff's Exhibit 7 marked for identification.)

Q. This is Exhibit 7 Bates stamp No. CO 19106 through 19110. Can you tell us what that project involves?

A. I'm sorry. I missed the question. Was looking at it.

Q. That is a letter dated June 4, 1993?

A. Right.

Q. From you to Mr. Pendergast which is another scope of work and cost estimate for soil vapor studies?

A. That's correct.

Q. Where were these to be taken?

A. At Elkhart Office Machines and Walerko Tool & Engineering.

Q. As well as at the yard?

A. No.

Q. Up on top the re says Conrail Elkhart Railyard, but that's in error or is it just relevant to that project?

A. Relevant to that project.

Q. What was the purpose of these studies? These are also vapor studies, soil vapor studies?

A. Again, to determine presence or absence of carbon tetrachloride, TCE at these facilities.

Q. These studies, I take it, were proposed at the same time as the other studies are concerned back in 1991?

A. Yes.

Q. Going back to the previous exhibit dealing with the soil vapor studies in the railyard, when were they completed?

A. When were which studies completed?

Q. The ones we just talked about before. Exhibit 6, the one on the yard itself, that you took on the yard.

A. That was completed -- I can't remember the specific dates, but towards the end of winter '92, I believe.

Q. What were the results -- strike that. How many surveys were made in these areas, Elkhart, Walerko? That's it. Those two areas.

A. How many vapor samples?

Q. Yes.

A. I believe there were 30 at Elkhart Office Machines and 40 at Walerko.

Q. What lead you to make these surveys?
A. It was a decision by Conrail based on my understanding to be file search information.
Q. Did you make the file searches?
A. No.
Q. In this instance you promised a brief report of the methodologies and findings, et cetera. Was that report completed?
A. No.
Q. Never made a report?
A. That's correct.
Q. Any reason?
A. Conrail has not requested the final report.
Q. Has all the data been collected, all the testing done?
A. Yes.

(Plaintiff's Exhibit 8 marked for identification.)

Q. Bates No. CO 06572 to 06607. Let's take a look and let's take a few at a time, if you would. First which covers pages 06572 through 74. This is a monitoring sample record; is that correct, sir?

A. Yes.
Q. Did you prepare that record?
A. The first page, yes.
Q. What project was this in reference to? Was it the diesel shop or Track 69?
A. This was subsequent to the remedial investigation. I'm speaking of the first page here. In between the remedial investigation, the initial one, and the Track 69 investigation.
Q. This is dated in June of '89; is that correct?
A. Yes.
Q. The remedial investigation started at that point?
A. I believe it had been completed by then.
Q. It refers to bailing and sampling. That's the method you described before for us; is that correct? Purpose of site visit.
A. Yes.
Q. And it says other: slug tests. What are the slug tests?
A. The slug tests were performed to determine aquifer characteristics.
Q. How would they help?
A. They would determine hydraulic conductivity.

Q. How are they conducted?
A. They were conducted by inserting a slug into the well.
Q. Excuse me for a moment. What's a slug, other than a little thing that crawls along the ground?
A. Approximately a four- to five-foot long PVC pipe closed at both ends. We would put it in the well and it would displace a certain level of water. It would change the level of the well, and you would monitor the recovery or the return of the water level back to its normal position.
Q. What would that tell you?
A. Again, through knowing that data you can determine the hydraulic conductivity in the area around the well.
Q. Again, a silly question. Why would you want to know the hydraulic conductivity?
A. You can calculate other aquifer characteristics and determine groundwater flow velocities.
Q. Using the map we just had, the previous exhibit, if you would.
A. No. 7?
Q. The last page of No. 6. Would you mark on there

where these tests were conducted.

MR. ERMILIO: Which tests? Talking about the slug test?

MR. RUVOLO: The slug test.

A. (Witness complied)

Q. Maybe you ought to switch and do it in black.

A. I'm going to have to refer to a map for the BMW-3 location, but I believe it's approximately here.

Q. After you conducted the sampling and you got the samples, what happened next?

A. The slug test results or the other samples?

Q. Who gets them?

A. Rita Boje, Dave Arnold.

Q. Are they sent out for analysis, any further analysis?

A. Which samples?

Q. You tell me which ones are. The vapor studies, slug tests?

A. I'm not sure what the question is.

Q. Down below on the first page it says samples going to what lab and you have GTEL, Wichita. Which samples were those?

A. Those would be the ground samples from RMW-2 and

BMW-3 prior to the slug tests.

Q. Did you get the results back from those?

A. I'm sure we did, yes.

Q. Do you know what the results were?

A. I don't recall them off the top of my head, no.

Q. Attached to the last page of -- the page three 06574 is a -- it says Figure 3.0. I presume that comes out of some report? Down at the bottom.

A. Yes.

Q. What report would that be?

A. I don't know. It's not a GTI report.

Q. This is a field drawing showing drum and sample locations; is that correct?

A. Yes.

Q. And do you know who prepared it?

A. No, this was obtained from a file search.

Q. Did you verify any of the information in this document, this page?

A. Actually, I believe now that this is a figure from a report that I don't know what it's from, but I believe I had field notes of my own on the map from when we conducted this soil vapor survey.

Q. Could you tell us what area it pertains to in regard to the map that's in front of you from Exhibit 6?

A. This map?

Q. Yeah.

A. This is the Robert Martin drum site, and in relation to the yard, it would be off to the northwest.

Q. So this was not conducted on the Conrail property?

A. That's correct.

Q. Why was this area picked for surveys?

A. Again, I believe from previous file searches. May have the potential for presence of carbon tetrachloride or TCE on the property.

Q. Did you connect this site up with any part of the contamination that existed in Conrail?

MR. ERMILIO: Objection. I'm not going toolet him answer if you're asking for his conclusion as to sources of contamination.

MR. RUVOLO: He is a geologist. I think he can tell us --

MR. ERMILIO: I would bet that he could

tell you. He could give you his opinion, but that's not what we're here for today.

Q. (Mr. Ruvolo continuing) What was the relevance of including this as part of this monitoring and sampling record?

A. Further characterize the area.

Q. Did you find any carbon tetrachloride or TCE on this Robert Martin drum site?

A. I believe very low levels of TCE were detected.

Q. Over on the right it says legend and it has some boring, pit test and sample locations. Did you conduct those?

A. No.

Q. Was this prepared for Conrail?

A. No.

MR. ERMILIO: You said this. Are you referring to the map, Figure 3?

MR. RUVOLO: The map, Figure 3.

Q. Let's go to the next one. 06575 through -- let's just go up to 77. That was again a sampling done of BMW-3C and RMW-2C?

A. I'm not familiar with that. Appears to be.

Q. This is part of GTI's or Groundwater Technology's

record, I take it?

A. Yes.

Q. Technician was K. Johnson?

A. Yes.

Q. Does he still work or she still work?

A. No, he does not.

Q. In this instance the samples went to Chuck Dittmar; is that correct?

A. I think that's what it states.

Q. Is there any reason it would go to Dittmar rather than to GTEL as the previous one did?

A. I believe this may have been during Track 69 investigation. The gas chromatograph would be on site.

Q. Look at page two about the third sentence from the bottom it says found BMW-3C in between Track 5 and 6.

A. Can you repeat question again.

Q. If you look at the second page which is dated 9/24/90 the third reference from the bottom says that the BMW-3C was in between Tracks 5 and 6. Would that still be part of the Track 69 investigation?

A. No, I'm not sure what the C designation is next to BMW-3, but BMW-3 was installed during the initial remedial investigation.
Q. Would that be a GTI well?
A. Yes.
Q. When you look at the next page you've also got a diagram on the side there. It says RMW-2C. Got a location near a track of some sort. Then next one down is RMW-2D which the reference is being destroyed by vehicles running over it. Do you know what those were in connection with?
A. Actually I believe now that he's in error identified them in his notes. I believe these are additional wells installed around RMW-2 along with a pumping test well.
Q. For what purpose?
A. For the purpose of conducting a pump test.
Q. Is there any indication what the results of that pump test was?
A. The pump test was conducted a year later. And what was the question again? I'm sorry.
Q. What the results were.
A. I believe based upon results of the pump test I

think the aquifer trans transmissivity was defined in the storage coefficient.

Q. Next two pages, C0 06578 and 06579 are notes on Conrail or entitled notes on Conrail. Do you know whose notes those are?

A. I beieve those would be the notes of Mike Barnes.

Q. Who was Mike Barnes at the time?

A. He was a chemist.

Q. Was he employed by GTI?

A. Yes.

Q. Does he still work for GTI?

A. No.

Q. What was he doing at the site?

A. He was analyzing the soil vapor samples.

Q. Is there any indication as to who had taken those samples?

A. Pardon me.

Q. Is there any indication as to who had taken the samples themselves?

A. On this page?

Q. Do you know who took the samples and where the samples were taken from?

A. Yes.

Q. That's my question. Who took the samples? Do you know who took the samples that he tested, that the chemist tested?

A. Yes, I would say myself and Eric Henderson collected a majority of them, and subsequently I believe Matt Manka and Eric Henderson collected a few at a later date.

Q. Which project was that involved? The Track 69 or the diesel shop?

A. That was subsequent to the Track 69 investigation. It was not part of the Track 69 investigation.

Q. Why was the sampling done?

A. Because of the results of EPA's Phase II investigation showing TCE towards the west, southwest end of the class yard.

Q. This was taken on Conrail property?

A. That's correct.

Q. On the page to the -- the second page on the upper right-hand corner on page 06578 indicates there was some findings of carbon tetrachloride, is that correct, and TCE?

A. Yes.

Q. And he says PCE would be present in a tank car containing TCE. Do you know what that reference was to?

A. Where do we see that now?

Q. Upper right about the third line down.

A. I don't know what he means by that.

Q. Was any sampling done around where there might have been a tank car?

A. No.

Q. In your sampling work did you come across any tank cars that might have been buried?

A. No.

Q. Turning to C0 06580, a sampling record that I believe you were the technician on?

A. Yes.

Q. Is there any indication what the results were, what kind of sampling was done?

A. Based on this, I don't believe there was any sampling done. Under purpose of visit was supervising the installation of a monitoring well.

Q. This says equipment used: camera and HNU photoionizer?

A. Yes.
Q. What is that used for normally?
A. To determine relative levels of hydrocarbons in the head space of your soil samples.
Q. Did you come up with any results after that exercise?
A. Yes, there would be readings that would be in the file.
Q. 06581, the next page. This was dated September 4, 1990. Again, observe EPA on-site activities and do some sampling work with BMW-3. Where would these be located?
A. Again, I believe he's written down the wrong designations for the monitoring well. I believe they would be in the area of RMW-2 where we propose to conduct a pump test.
Q. Going back to that map attached, where would RMW-2 be?
A. That would be right here.
Q. Indicating where you had previously marked the location?
A. That's correct.
Q. I take it the next series of pages which is 06582

through 87 is some sort of a logbook entry, part of a logbook entry?

A. 82 through 87?

Q. Yes.

A. Yes.

Q. Do you know whose logbook that was?

A. I believe 82 would be Kevin Johnson as well as 83 and 84 and 85. 86 is missing.

Q. I have two. There's no 87.

A. I do have an 87.

Q. Maybe you have two.

A. Would you like one?

Q. Just go up to 86.

A. Yes, I believe those are Kevin Johnson's.

Q. Turning to 84, would you tell us what that diagram on the left represents?

A. Again, I believe he's trying to draw the area around RMW-2 where we had installed pump wells and four additional monitoring wells.

Q. Those were the wells he was purging that day?

A. Yes, I believe so.

Q. The next page 06585 on the left-hand side you've got three columns. One is the listing, I

believe, of the various wells and you've got a EPA column and a GTI column with one entry. Tell us what that represents.

A. I believe those are depth to water measurements. Apparently the EPA column is other results of EPA personnel or water levels EPA personnel measured.

Q. Were you working with the EPA at that time, EPA personnel in doing the sampling?

A. No.

Q. Were these readings given to you by the EPA?

A. I can't answer that. These aren't my notes.

Q. The notes on the right-hand side of the page, are they, in your opinion, related to these columns here on the left? For example, sort of the lower third of the page begins with gauged RMW-2, BMW-2 et cetera.

A. Yes, I think they would relate.

Q. What does he mean by gauge?

A. Determine groundwater levels.

Q. 06587 and 88 are notes on Conrail again. Do you know who took these notes?

A. I believe 587 are Mike Barnes' notes and are actually the same pages 578 in the exhibit.

Q. What about 588? Same as the other?
A. Yes.
Q. 06589 through 99 appear to be somebody's logbook entry again. Do you know whose?
A. I believe these are the notes of Ken Coad.
Q. C-o-a-d?
A. Yes.
Q. When did he work for GTI on this project?
A. Fall of '89.
Q. Do you know what part of the project he worked on? Was this Track 69 or was this the diesel?
A. Actually this was oversight of on-site EPA Phase I remedial investigation activities.
Q. What area of the yard did that pertain to?
A. I'm not completely familiar with that, but I believe in general was the entire yard.
Q. On page 06589 is the diagram or map, a local map, a soil gas survey?
A. Yes.
Q. Do you know what the reference camper cars refers to?
A. I believe that's towards the east end of the yard and I believe that's where Conrail employees stay

when they have to stay overnight.

Q. Where would metal scrap yard be?

A. I'm assuming in the same general area.

Q. And finally on page 06592 there's another diagram. Does this fairly connote the type of sample equipment that was used?

A. It appears to be that, yes.

Q. Would you explain it for me, if you would, which part is where the readings are taken?

A. I'm not sure I can. I wasn't present and this was EPA's methodology, but I can attempt to.

MR. ERMILIO: Peter, do you want him to describe EPA's methodology?

A. I was not involved in this.

Q. This report is from the logbook of Mr. Coad?

A. Yes.

MR. RUVOLO: You want to break for lunch?

(A lunch break taken at this time.)

Q. (Mr. Ruvolo continuing) Mr. West, ask you to take a look at Plaintiff's Exhibit 9 for identification. It's part of that attachment to Exhibit 8, but I put together this composite with scotch tape, as you know. If you can identify it

for us, I'd appreciate it.

A. In general it's a map of the railyard showing various boring locations.

Q. Starting from left to right, which would be the east end of the yard, would you explain what some of the symbols are. For example, the diagram that looks like a muscial scale in the sense that it's marked B1-4 and it has certain numbers underneath. Can you tell us what they are?

A. These numbers here.

Q. Put a one next to it with a black pen.

A. One next to here?

Q. So we know what we're talking about.

A. Apparently -- I'm not sure who generated this map, but I believe these are soil vapor point locations conducted by EPA during their Phase I remedial investigation.

Q. And does it indicate -- from your recollection and from your files B1-4 indicate EPA?

A. The B1-4 would be a boring conducted by Groundwater Technology during their initial remedial investigation.

Q. If you would, would you clarify where you have

this one what the smaller numbers are. Why did you make a reference to EPA?

A. I believe these -- I believe this is a map generated by Ken Coad during the time which he was overseeing the activities of EPA on site during their Phase I investigation. So I believe that these are soil vapor point locations the EPA conducted in the area as well as this B1-4 is a Groundwater Technology boring installed during their remedial investigation.

Q. Is there any indication where the EPA wells were?

A. I'm not sure I understand what you're saying. These aren't wells.

Q. Is he referring to this area that's marked with a circle?

A. Yes, appears to be that way.

Q. These little black boxes in here on the very eastern end of it?

A. That appears to be.

Q. Is that what you think he's talking about in reference to the EPA?

A. Yes.

Q. Slightly to the west of that including part of

the circle we have B1 through B3 and then B4 through 6 and then B7 through 9. Those are all GTI wells?

A. That's correct. They're borings, not wells.

Q. Are they the ones that we referred to earlier today when we were going through the boring logs?

A. No.

Q. Why were these -- why was this area -- why were the borings being taken in this area?

A. As I say, these were part of the initial remedial investigation which I played no part in.

MR. ERMILIO: Peter, for your information, Rita Boje was involved in that, and she will be deposed next week, Monday or Tuesday, so she can speak to initial RI activities.

Q. Do you know what this notation and this arrow pointing to this area here in the upper eastern end west leaking tank car area mean?

A. I'm not real sure what that means. I've heard that before. I'm supposing that that's an EPA designation.

Q. Would we have to go to the logs to determine how deep these borings were and what the findings

were?

A. Yes.

Q. Some of them we went through before. Then we have -- going a little bit further I guess west --

A. East.

Q. We have RB-1 and RMW-1. Are they GTI wells?

A. RB-1 is a boring. RMW is a well.

Q. If we wanted to find out what the test results were from these borings and from this well, where would we go?

A. You would look in the -- forget the exact title, but the final report generated as part of the initial remedial investigation.

Q. Going to the second section. Sort of here on the left-hand side we have reference to flexivan facilities. Tell us what they were.

A. I believe that's an auto terminal. I'm not exactly familiar with the function of it, but I believe that cars and vans that come into the yard are taken off and put in this facility before they're shipped elsewhere.

Q. You have a monitering well and a boring well on

each side of that; is that correct?

A. Yes, I believe the boring is EPA's RMW-3 and RMW-4 are GTI wells.

Q. Do you know what the results of those wells were, what the results showed as far as the carbon tetrachloride and/or TCE?

A. Again, you could look in the report that I just mentioned a minute ago.

Q. Going to the middle part where the west tower and car repair shop are located, could you tell us the printed data regarding RMW-2 and RB-2, are they GTI operations?

A. That's correct.

Q. What were they intended to do?

A. Again, they were part of the initial remedial investigation.

Q. Was this the remedial investigation as far as the diesel shop area was concerned?

A. No.

Q. This was part of Track 69?

A. No, this was the initial remedial investigation with regard to the NPL nomination.

Q. And you see there are certain entries made in

black ink or black pen with dots and reference numbers. What do they refer to?

A. I believe those refer to soil vapor sample collection points conducted by EPA.

Q. Did you test these soil vapor points as well as EPA?

A. No.

Q. And as far as GTI is concerned and just keeping concentration on this west tower and car repair shop area, what were the results of those wells and borings?

A. Again, I'd have to refer you to the final report for the initial remedial investigation.

Q. Were any remedies taken after the investigation?

A. Removal action?

Q. Uh-huh.

A. Not to my knowledge.

Q. Going across the top of this Exhibit No. 9, I see three areas that have circles. Do you know what they represent?

A. I believe the circle to the left --

Q. Let's mark that with a 2 and 3 and 4.

A. Area 2 is the site of Conrail's surface water

drainage discharge point to Crawford's ditch through their MPDES permit.

Q. What was found in that area, if you can tell us?

A. No, I can't tell you.

Q. What steps were taken in that area?

MR. ERMILIO: What do you mean what steps were taken?

Q. What was done? Were there borings made or monitoring wells?

A. Again, it appears that these are EPA sampling locations and they appear to be soil vapor points and possibly a boring.

Q. Did GTI do any work in that area?

A. Not to my knowledge.

Q. How about RB-4?

A. RB-4 is to the west of that.

Q. That was bone by GTI?

A. Yes, that's correct.

Q. BMW-3 which would be to the south?

A. Northwest.

Q. That was GTI?

A. Yes.

Q. What is that triangle?

A. The triangle designates that that is a monitoring well.
Q. What are these stars or asterisks?
A. That is the location of the soil boring. That designates a soil boring.
Q. The circle with the points coming out of it is a boring and triangles are wells?
A. Yes.
Q. Going to No. 3 again, that deals with what area?
A. That is the diesel shop area near the oil water separater facilities.
Q. Do you know what these numbers represent?
A. Again, those appear to be soil vapor survey sample locations conducted by EPA.
Q. These other references to RB which I believe it's supposed to be 5, 6, 9 and 8, those are GTI?
A. That's correct.
Q. As well as RB-1 which is down at the northern end?
A. I believe that's 11.
Q. RB-11, right?
A. That's correct.
Q. And 12?

A. That's correct.
Q. Would you tell us about No. 4, where you've circled No. 4?
A. No. 4 is a blow-up of the actual diesel shop building and appears that there is some additional soil gas sampling points of EPA's.
Q. And none by GTI?
A. No, they're not in the above circle, but apparently I'm seeing additional borings around the diesel shop that would have been conducted in the GTI's initial remedial investigation.
Q. Over in the far right is a sort of a semi circle marked former wash evidently cut off at some point. Do you know what that represents?
A. I'm not familiar with what that is, no.
Q. GTI had two monitoring wells, correct?
A. Those are actually borings.
Q. B2-4 and B2-3?
A. As well as B2-3.
Q. Give us an overall view or idea what the results were of all that testing.
A. Again, all of these sampling locations or boring locations relate to the initial remedial

investigation, and I'm not familiar with the results of those.

Q. If we want to find the results we'd have to go back to the documents, to logging records to find out how deep these monitoring wells went or how deep the boring?

A. That's correct.

Q. And what was found, and that we'd have to reference back to the documents we were talking about this morning?

A. That's correct.

Q. Are all these documents, a map such as this with the locations of the wells and the borings as well as the logs from the borings and the wells, are they all in one place in one report?

A. For the initial remedial investigation, yes.

Q. Has there been another report made since the remedial investigation other than the Track 69 soil vapor survey report and the southwest main classification yard soil vapor survey report?

A. No.

Q. Those reports would be similar in content as far as where the locations of the wells and borings

were made and surveys as well as the results?

A. Yes.

MR. RUVOLO: Do we have copies of all those?

MR. ERMILIO: Yes, you do.

(Plaintiff's Exhibit 10 marked for identification.)

Q. Mr. West, if you'd take a look at Exhibit No. 10 which is entitled -- which is a letter from Groundwater Technology to Mr. Frank Sabota dated May 8, 1990, with attachments. Can you tell us what they represent?

A. Apparently these are profile sheets for soils generated during the remedial investigation.

Q. On the second page -- the exhibit runs from C 018362 through 18370. On page 18363 is a certification of a representative sample. That was prepared by you -- was witnessed by you; is that correct?

A. Yes.

Q. Does that mean that you took that sample?

A. No, it means I witnessed that.

Q. Does that mean Shawn Stratmann took that sample?

A. Apparently so.
Q. Do you know what area of the yard or elsewhere this sample was taken?
A. These would have been collected from drums, drums containing soil from the remedial investigation.
Q. Would you be able to tell us where the soil was taken from and put in drums referring to Exhibit 9?
A. The soil would have been put into drums obviously at all the various boring locations, and I believe they were all staged in this area by the dormitory over here.
Q. Would you put a number five there, please, and circle it in the general area.
A. (Witness complied)
Q. What is the generator's waste material profile sheet, if you know?
A. I believe that is a form that's required to be filled out before the accepter of the waste will accept it.
Q. According to Exhibit C018364, the name of the waste was contaminated soil?
A. Yes.

Q. And what did it contain?
A. If you look down in Section E, trace amounts of chloroform, trace amounts of carbon tetrachloride, trace amounts of trichloroethene, soil, gravel, oil and grease.
Q. I take it you have to file this profile sheet in order to get the contaminated soil disposed of?
A. I believe so.
Q. And it says process generating waste. The soil residue from a monitoring well installation. Is there a way we can tell where this well was?
A. Not based on this form.
Q. Attached to that is a document to Kevin Polkinghorn from Margaret Greene. Do you know who they are?
A. No, I don't. Margaret Greene used to be employed by GTI. I can't recall what her title or role was. Apparently Mr. Polkinghorn was a representative of Chemical Waste Management.
Q. Attached to that is an addendum to the previous waste profile sheet; is that correct?
A. Yes.
Q. And attached to that is a report from GTEL?

A. Yes.
Q. On the sampling, is that correct, or the testing it did of the sample?
A. That's correct.
(Plaintiff's Exhibit 11 marked for identification.)
Q. Would you take a look at that and see if you can identify that for us, Mr. West.
A. Yes, this is a letter that I wrote concerning the diesel investigation.
Q. And that was to the Indiana Department of Transportation?
A. Yes.
Q. As I read it or as I understand it, it had to do with the north side of U.S. 33?
A. Yes, that's correct.
Q. And where would that be in regard to the map, Exhibit No. 9, that's in front of you?
A. Due north of the diesel shop.
Q. Do the wells referred to in this letter appear on that map?
A. No, they do not.
Q. Can you give us an idea where they would be,

taking the pen and putting some markings and we'll put a circle with a number in it?

A. The circle four seems to be over the area where they would be. Would you like me to go ahead and draw them within this?

Q. Yes, please.

A. They would be in this area.

Q. What was the purpose of these wells, monitoring wells?

A. Additional subsurface investigation.

Q. In connection with the diesel investigation?

A. Yes.

Q. Did you have a hand in the monitoring after these wells were put in?

A. Yes.

Q. Can you tell us what the results were?

A. Basically we periodically collect depth of water measurements and note the presence of any fuel oil in the monitoring wells.

Q. Was there fuel oil in the monitoring wells?

A. I believe there is now, not initially.

(Plaintiff's Exhibit 12 marked for identification.)

Q. This refers to Bates stamp 06880 through 06894. Can you identify that for us, Mr. West?
A. Appear to be analytical results.
Q. Taken by GTEL?
A. They were analyzed -- samples analyzed by GTEL, yes.
Q. And the front page 06880 refers to temp violation?
A. Yes.
Q. What was that in relation to?
A. Temperature.
Q. And on page two, that's the description of nonconformance, temperature violation?
A. Yes, appears to be.
Q. Seems to be a little note under that please run the samples anyway, exclamation point, Rita Boje.
A. Yes.
Q. 7/31/91. The following page is a document which indicates that you had control of a sample at one point. Is that the same sample? This is a chain of custody record, I guess. Is that in regard to that sample?
A. They don't appear to note which sample they're

talking about on page two, but in general that would be in reference to a water sample, whereas this chain of custody refers to soil samples.

Q. Far right of that chain of custody record there's two checkmarks and above that is EPA and No. 8010 carbon tetrachloride and TCE. What does that refer to?

A. That's the analysis to run on the samples.

Q. These samples were taken from borings B-12 and B-13?

A. That's correct.

Q. At 25 feet and eight feet?

A. Yes.

Q. And the following page is GTEL's analysis of analytical results of their sampling?

A. These are results for water samples from monitering wells.

Q. The monitoring wells being identified by client identification numbers?

A. Yes.

Q. The same would be true of the next page 06884, 885 and 886; is that correct?

A. That's correct.

Q. What's the difference between the analytical results appearing on page 887 as contrasted with the previous ones? Are they testing for something different or additional or what?

A. Could you repeat that again.

Q. The Table 1 of this analytical result which is 06887 appears to be a lot more -- cover a lot more chemicals or contaminants possibly than the previous results.

A. Yes.

Q. Is there a reason for that?

A. I do not know of the reason other than they reported all the VOC's that would be run per that method of analysis.

Q. If you look at some of the numbers and some of the letters, some are darker than others. Are they because they're additional?

A. No, if you look across that would be because they were detected.

Q. When you say they were detected, you mean carbon tetrachloride was also detected but it's not in the darker letters?

A. It was not detected in the samples on that page.

Q. On that page. The TCE and the rest were; is that correct?
A. That's correct.
Q. The following page deals with, of course, different monitoring wells which we do find chloroform, carbon tetrachloride, trichloroethene, tetrachloroethene were found; is that correct?
A. Yes.
Q. The following page which deals with equipment blank. Where was -- what is the equipment blank?
A. Periodically during sampling activities you collect a sample of distilled water which you pour into the sampling equipment or in this case a bailer that you're using to collect the samples in order to check if your bailer is being cleaned or decontaminated adequately between monitering wells.
Q. You would use the same bailer for -- during the process?
A. That's correct.
Q. Were the bailers cleaned between each usage?
A. Yes.

Q. What does a duplicate refer to?
A. Duplicate would be running an analysis or two analyses on the same sample to verify the results.
Q. What does a trip blank refer to?
A. The trip blank would be a sample of clean water that would accompany samples that you were sending to the lab at all times. Therefore, when you analyze the trip blank you can verify that there were no -- that the samples to be analyzed were not exposed to any other VOC's that could have infiltrated the samples.
Q. The duplicate, if you look down the column there are two numbers again in much darker letters than the others, one referring to chloroform and the other carbon tetrachloride 3200. What does that refer to or what is the meaning of that?
A. Those are the levels at which those compounds were detected.
Q. You said the duplicate was using two same methods. How would you know which one detected the chloroform and which one detected the carbon tetrachloride, or am I making sense?

A. The duplicate sample would be a separate discreet sample analyzed but taken from the same monitoring well.

Q. There's no indication on here, unless I'm wrong, as to what monitoring well was -- the duplicate was taken from; is that correct?

A. That's right. In general you avoid labeling that so the lab -- to avoid any bias in the lab.

Q. 06890 is basically the same thing only for different wells BMW-10D through RMW-6, correct?

A. Yes, that's correct.

Q. And the findings there as far as what was found. Up above it refers to date reported and date reissued. What do those dates refer to? In other words, a sampling was done on the 3rd of December. Let's look at page 06890. Was analyzed on the 10th, was reported on the 11th and was reissued on the 27th. What does that mean, if you know?

A. I'm not sure what the reissued date means in this case.

Q. Were reports given to GTI from GTEL orally or telephonically or otherwise prior to an official

report?

A. That's not uncommon.

Q. Though it may not be uncommon, did it occur in regard to your relationship in this -- with this project?

A. I never received a call from GTEL stating results to me.

Q. The other attachments up through 06894 are basically the same analytical results, just various dates of samples taken?

A. That's correct.

(Plaintiff's Exhibit 13 marked for identification.)

Q. This is a memo that you were copied on prepared by Levy Soliven. Can you explain the circumstances behind that report?

A. This is involving the diesel investigation and the expansion to the existing remediation system.

Q. When you say remediation system that was there, what kind of a system was there at the time?

A. Initially there was a two recovery well remediation system installed at the diesel shop and has since been expanded to six remediation

wells.

Q. When did that expansion go into effect?

MR. ERMILIO: Peter, there have been a lot of questions on the diesel remediation and I don't understand the relevance other than the fact the date of them may be relevant. As to the remediation for the diesel investigation and the diesel project, I don't see any relevance to the issues in this case.

MR. RUVOLO: There was some findings in that area as the test results will show later on.

MR. ERMILIO: As the test results show --

MR. RUVOLO: Reports show there was some contamination from the soil in that area.

MR. ERMILIO: I understand the date is relevant, but how is the remediation relevant to the issues in this case?

MR. RUVOLO: It's a document that you submitted to us and I'd like to find out the purpose behind it and what the connection was with --

MR. ERMILIO: I don't know if I'm going to let you get to the purpose behind it.

MR. RUVOLO: Let him tell me what it was about.

MR. ERMILIO: My objection is to the scope of the deposition, the relevancy. If you're getting to irrelevant matters or not, I'm asking if you can tie that into the issues in this case. I haven't heard anything other than the data which I agree with. The data may be relevant and that's why I let you ask questions about the data and the testing done, sampling done in connection with the diesel project, but for the remediation I don't understand.

MR. RUVOLO: I would like to know what -- as far as this document can tell us, what kind of remediation steps were taken and why.

MR. ERMILIO: I understand that's what you want and I'm asking you to explain to me how that's relevant to this case.

MR. RUVOLO: Because it may give an indication of what was their -- what was the problems with the initial remediation facilities that existed on the property. There was a change that was made. Why was the change made?

MR. ERMILIO: Let my objection stand. I'll let him answer the question.

A. What was the question again?

Q. What were the circumstances behind this memorandum or phone call?

A. It was a call to the Indiana Department of Environmental Management seeking guidance on requirements for submitting construction permits for expansion of the remediation system at the diesel shop.

Q. This was in January of 1982?

A. Yes.

MR. JAFFE: Can we take a break?

MR. ERMILIO: By the way, Peter, I think it was January '92. I think you mentioned '82. For the record.

(Short break taken.)

(Plaintiff's Exhibit 14 marked for identification.)

Q. Mr. West, if you would, letter of March 17, 1992. This is Exhibit 14. From you to Frank Sabota, Consolidated Rail. Can you tell us the circumstances behind that letter, what it had to

do with?

A. Yes, this is in reference again to the diesel project expansion of the existing recovery system which would involve running lines beneath the eastbound departure yard and as opposed to trenching to install the lines which was not logistically feasible. We had to go with the bore and jack methodology, and that's what this letter is in reference to.

Q. Attached to the letter is a map. Would you explain that?

A. This is a general site map of the diesel shop area showing the location of monitoring wells and recovery wells.

Q. When it shows the monitoring wells and the recovery wells, are they all GTI wells?

A. That's correct.

Q. At the top of the page, Franklin Street, U.S. 33 and that surrounding area you see lots of numbers, D-27, 28, 29, 24. What are they referring to?

A. Those again are monitoring wells.

Q. The RW-5 and the RW-4 which is sort of in the

middle of the page or middle of the map, what does that refer to?

A. Those are recovery wells.

Q. What about RW-2?

A. A recovery well.

Q. That is in black or black triangle whereas the others are white triangles. Is there any significance to that?

A. The black well is an existing recovery well. The white one is a proposed.

Q. So RW-6 is a proposed well?

A. That's correct.

Q. Were these eventually put in?

A. Yes.

Q. Was sampling done of the wells?

A. No.

Q. What was the purpose of putting the wells in?

A. Recovery of diesel fuel.

Q. So that these wells were not put in for testing for carbon tetrachloride or TCE or something of that nature; their main purpose was to recover the fuel?

A. That's correct.

A. As I recall, there was one composite sample and it indicated TPH as diesel in soil to be 460 parts per million.
Q. That has to be disposed of, is that correct, the soil cuttings once they've been analyzed?
A. That was a decision for Conrail.
Q. Is that what your reference is to Prairie View Recycling Center in Wyatt, Indiana?
A. Yes.
Q. Is that a requirement of the Indiana Department of Environmental Management?
A. Is what a requirement?
Q. The disposal of the soil cuttings.
MR. ERMILIO: To the best of your understanding, realizing you don't work for IDEM.
A. Yes, as I understand, soils at 100 parts per million or above should be disposed in an IDEM approved facility.
Q. When you said the soil cuttings were a composite, is that from those four wells?
A. That would involve soils generated during well installation as well as trenching of the water and product lines to those wells.

(Plaintiff's Exhibit 16 marked for identification.)

Q. Show you the next exhibit. That's a letter from you to the environmental health supervisor for Elkhart County; is that correct?

A. Yes.

Q. What was the purpose of that letter?

A. It was an effort to gain information from the Elkhart County Health Department regarding their groundwater protection ordinance.

Q. You make reference in there concerning waste water characterization results. What does that mean?

A. Any analytical results of waste water generated by any facilities that are on their list.

Q. You say in that first paragraph "I hope I will have the waste water characterization data in your files." What is that referring to?

A. What does that sentence mean?

Q. Yeah.

A. Simply that, that I was anticipating that they would have those results in their files for those facilities.

Q. What was the purpose, if you will, of this inquiry to begin with? Why were you contacting them?

A. To determine if other industrial facilities in the area around the railyard would have carbon tetrachloride or TC in their waste water that they generated.

Q. In other words, if any other companies in the area had reported waste water contamination or something of that nature and needed to dispose of it?

A. No, not needing to dispose. Just in accordance with the groundwater protection ordinance.

Q. Did you obtain that information from the health department?

A. I obtained some information from them, yes.

Q. Did that information lead you to make different arrangements in the scope of work as far as the Conrail site was concerned?

A. Not to my knowledge.

(Plaintiff's Exhibit 17 marked for identification.)

Q. Next exhibit is No. 17. Could you give us --

that's a letter to Vicky Engelmann of the Prairie View Landfill from yourself dated June 25, 1992. I take it that is looking to dispose of the soil cuttings from the Conrail property?

A. Yes.

Q. Are these cuttings that we refer to in the previous exhibit?

A. No.

Q. Where were these cuttings taken from?

A. I believe these are referred to the cuttings generated during the initial remedial investigation of the Track 69 investigation.

Q. You mention in the letter that you're enclosing a special waste profile sheet and analytical results from the drummed soil cuttings. It's not attached to this, but what were the results, if you can recall?

A. I believe that the majority of the drummed soil cuttings had results that would meet the requirements of special waste.

Q. So they would have to be disposed of at a landfill of some sort?

A. As special waste, yes.

Q. Would that infer that they were in some way contaminated?

A. I would have to review the results.

Q. That leads me to a point I've been trying to clarify in my mind. That has to do with where the results that are referred to in this letter are. In other words, they're not attached to the letter. Where are they? How do we know what the results are? I mean how would we find them in your method -- your company's method of recordkeeping? Where would I go to look to find the analytical results from the soil cuttings?

A. I could show them to you in our files.

Q. Can you explain to me as far as recordkeeping is concerned, do you keep all the analytical results in one file and all the boring results in another file and all the soil survey results in another file, or do you put boring number whatever the number is, B-12, with all relative related information concerning that together?

A. Typically for a correspondence like this we would for the file have put a copy in that had the enclosures attached to it. Why this one doesn't,

I couldn't tell you.

Q. But -- do you want to add to that?

A. Go ahead.

Q. Everytime -- strike that. If you wanted to go to the files and get all the information dealing with the findings connected with monitoring well BMW-33, would you have to go to different folders in the file or would you be able to go to BMW-33 and pull out all the information connected with that well?

A. In general they're separated by investigation, whereas, for instance, boring logs for Phase I Track 69 would be in the file. Boring logs for Phase II Track 69 would be in another file. Separated in that manner.

Q. But would all the boring logs be together? In other words, would there be a file for boring logs dealing with this particular bore and then another file dealing with this particular boring, or would they just be all thrown together?

A. They're put together again by investigation. For instance, Phase I Track 69 borings 1 through 10, you would find those boring logs together in the

file.

MR. ERMILIO: Maybe some help. Mr. Jaffe left, but he inspected the files. We showed him -- as they're kept we showed him the files. He may have an understanding that can help you if Frank's description is not helpful as to how it's organized.

Q. It's just hard to put all these things together and what their relationship is and I wonder if that's the same way you operate.

A. That makes perfect sense to me.

Q. Certain waste it may. If for example, there was a contamination found in one of the soils removed from a particular boring and that was sent to Prairie View for disposal and all of a sudden the health department came back and said I want to see all the records on that boring, say how far you went and where you found it, what the tests are. Would you have to go to five different places or could you go to one place, file that says boring No. 12 and here is what we found in connection with it?

A. In general I'd have to go to one place. In

general with the boring it's a one-time show.

Q. With a well would that be true?

A. With a well you may have to look in a couple places depending on how many sampling events you have.

Q. How often were the wells sampled?

A. The wells were sampled once after their remedial investigation. After Phase I Track 69 investigation the new wells alone were sampled. At the end of Phase II all GTI wells on site were sampled except for the diesel shop wells.

Q. How often were they monitored?

A. In what way, what type of monitoring?

Q. You would only do one sample on a well or would you sample it various times of the year?

MR. ERMILIO: He just described the number of sampling events on a particular well. Maybe you misunderstand or I don't understand your question.

Q. Maybe I misunderstood. You put a well in the ground, monitoring well. How often do you monitor it?

A. In general, the wells were sampled after that

phase investigation or after the wells were installed at the end of that phase investigation and were not monitored periodically after that.

Q. Do you know where the results of this test that was not attached to this letter are? Could you find it for us?

A. I could find them.

Q. Would you please and give them to Mr. Ermilio if we haven't got them?

MR. ERMILIO: You don't have them anywhere?

MR. RUVOLO: No, not as far as I can find. Just the one that's attached to this last exhibit.

(Plaintiff's Exhibit 18 marked for identification.)

MR. ERMILIO: Could be mistaken. I can confirm this, but Exhibit 17 is a copy of a letter that Peter Jaffe requested after he inspected the files in October of '92. It was either the end of October, early November '92 when he was out here going through files. I believe -- number one, the attachments would be

in the files at that point, the ones that he saw. So it is possible what he did was request a copy of the letter and not the attachments, but what we have --

MR. RUVOLO: I can't speak for Peter Jaffe since he's not here right now.

MR. ERMILIO: I understand.

MR. RUVOLO: I would ask if you can find it without too much trouble if you'd just send a copy of the results.

Q. Exhibit 18, if you'd look at that. It's Bates stamps C0 08972. It's a letter from you to Tracy Barnes of the Indiana Department of Environmental Management. Is this preceding the letter to Prairie View? It's the same date as the letter to Prairie View which was the previous exhibit. I take it it refers to the same drum soil cuttings?

A. Yes.

Q. The last sentence of the first paragraph is to the effect that your company performed sampling and analysis for reactivity and paint filter?

A. That's correct.

Q. What was entailed in that?
A. Those are additional requirements for waste characterization that were overlooked we had to perform.
Q. I take it that the results of the analysis results were to the effect that the soil was contaminated and had to be disposed of at Prairie View or similar type of waste disposal facility; is that correct?
A. The results supported the classification as a special waste.
Q. Again, it refers to analytical results. I take it it's the same ones referred to in the previous letter?
A. Yes.
Q. So that would have been the same attachment that was sent both to the Indiana as well as Prairie View?
A. Yes.

(Plaintiff's Exhibit 19 marked for identification.)

Q. Show you Exhibit No. 19. It's a letter dated July 2nd to Frank Sabota of Consolidated Rail

from you. Can you explain the circumstances behind that letter?

A. Again, in order to dispose of the waste at that facility we were required to get a special waste permit from the Indiana Department of Environmental Management, and in order to receive that permit we required the signature of a Conrail representative.

Q. Certification application or the permit application, I take it, is attached to the letter?

A. Yes.

Q. That's what you wanted Mr. Sabota to sign?

A. That's correct.

Q. According to the waste name shown under waste information, we're talking about chlorinated solvents; is that correct?

A. Soil cuttings containing trace quantities of solvents, yes.

Q. Going to the page marked C0 17738. I take it the solvents were the ones listed there, cadmium, chromium, lead and Endrin?

A. No, those are not solvents.

Q. What would they be classified as?
A. The first three, cadmium, chromium, lead are metals. The Endrin, I believe, may be some sort of pesticide or herbicide.
Q. These are samples that were taken back in 1992, February 25th?
A. Yes.
Q. I'm going to the last page, TCLP Organic Chemical Constituents. They found carbon tetrachloride, chloroform and trichloroethylene; is that correct?
A. That's correct.
Q. Where were those soil cuttings taken from as far as the property itself is concerned?
A. They were taken from the drums that were stored in Area 5 on Exhibit 9.
Q. What is Area 5? Is that the one you marked with the ink?
A. (Indicating)

(Plaintiff's Exhibit 20 marked for identification.)

Q. I show you Exhibit 20, July 8, 1992, Kevin Jennings, CWM Technical Center, Bates stamp

CO 17732 through 17734. Ask you if you can explain the circumstances behind that.

A. I don't think my Bates stamp numbers matched up with yours.

Q. C0 1 --

A. 18329.

Q. Let's use your numbers. C0 18329 through 18331. Ask you if you can explain the circumstances behind that application for profile.

A. Again, this is a copy of correspondence and the waste profile sheets for drum soil cuttings that were to be disposed of at Chemical Waste Management.

Q. This is a different facility than Prairie View; is that correct?

A. That's correct.

Q. This is in Fort Wayne?

A. Yes.

Q. Were these the same -- were these cuttings taken from the same area, Area 5 on this map that we refer to?

A. Yes.

Q. Was there a change or was it just using two

outfits to dispose?

A. No, this particular group of drum results came back classifying them as a hazardous waste as opposed to a special waste.

Q. What distinguishes a hazardous waste from a special waste?

A. In this case it was the levels of carbon tetrachloride, I believe. Above the listed MCL for a listed hazardous waste -- or characteristic hazardous waste.

Q. And yet both samples were taken from the same general area; is that correct?

A. Maybe I should go into the methodology of how they were collected. There were approximately 160 drums. The drums were partitioned into different groups and each group was -- a composite sample was collected from each group and then those samples were sent for analysis. Certain groups came back with results supporting a special waste classification and others came back with results supporting characteristic hazardous waste.

Q. And so the special waste you would send to one

type of landfill and with a hazardous waste it has to go to another type?

A. That's correct.

Q. How many drums did you say were collected?

A. I believe there were approximately 160 drums.

Q. What would that amount to in volume for soil, for example? How large are the drums?

A. 55-gallon.

Q. When you say they were collected and then there was sort of a composite sample, you mean the collections were taken and then they were mixed together and some batches picked up and tested for this and came back with special waste and another batch came back as a hazardous waste?

A. I believe the drums were split into groups of twenty and then portions -- a crosssection of the soil from each drum was extracted from each group of barrels and one composite sample was generated that would be analyzed for a full TCLP analysis.

Q. Were the 20 samples that were taken, were they taken all in the same area? You said they were separated into 20 barrels. Would the soil that was collected and put into those barrels all come

from the same area?

A. They came from various areas from borings from the remedial investigation and the Track 69 investigations. So the soil was generated from different areas within the railyard.

Q. Having found that one was contaminated -- one batch was contaminated, one batch was not contaminated, how would you go back and find out which area of the yard where these samplings were taken from, how would you find out which one was contaminated? Would you have to redo it?

A. If the drums were marked as to which boring the soil came from.

Q. There would be a record kept of the soil sample, the boring number, and the barrel number?

A. I believe so.

Q. The third page to this last exhibit is basically a copy of the second, addition being Mr. Sabota's signature to it?

A. That appears to be correct.

Q. On that second page or third page, the shipping information says anticipated annual volume, 20 drums. What are you referring to at that point?

A. Those were the drums that the composite sample was collected from.
Q. Were you anticipating further sampling down the road?
A. No.
Q. This was a one-shot --
A. That's correct.
(Plaintiff's Exhibit 21 marked for identification.)
Q. Would you identify that, Mr. West, please?
A. I believe this is a letter to the Indiana Department of Environmental Management officially submitting the special waste certification application with Conrail's representative's original signature.
Q. These are soil cuttings that contain the traces of chlorinated solvents?
A. That's correct.
Q. These taken from the same area?
A. Yes.
Q. And were these classified since they were going to Prairie View as special waste?
A. That's correct.

(Plaintiff's Exhibit 22 marked for identification.)

Q. Would you explain that one for us, Mr. West?

A. This is a letter to Prairie View Landfill stating that any drums prior to going to Prairie View Landfill that may contain any free liquids will be solidified with the bentonite.

Q. What is bentonite?

A. It is a clay additive that will soak up any free liquids.

Q. Is that a requirement if you're sending out materials of that sort?

A. Yes.

Q. This was dated July 17, 1992?

A. That's correct.

(Plaintiff's Exhibit 23 marked for identification.)

Q. Show you Exhibit 23 for identification, cover sheet of which is entitled materials documents Frank West requested and a Bates stamp No. C0 7657 through 7660. If you take a look at that and just explain to me what the purpose of those requests were?

A. This would be the analytical results for -- that apply to the groundwater protection ordinance for Elkhart County that I requested the Elkhart County Board of Health to provide.

Q. Which part of the project was that in connection with?

A. The overall Super Fund project.

Q. Would this be gathering information concerning the surrounding area?

A. That's correct.

Q. I take it the idea is to find out whether there are any other reports of contamination of such neighboring properties?

A. Or any facilities that would exhibit these contaminants in the waste waters that they generate.

Q. In this particular instance you were checking into a company by the name of Global Glass?

A. Yes.

Q. Where are they located in connection with the Conrail property?

A. Global Glass is on the north side of U.S. 33 north of the diesel shop area.

Q. Was there -- was this sort of a scatter hit -- strike that. Did you have information that lead you to request information on Global Glass or did you make a request to the department for information about anybody in that surrounding area or everybody?

A. I believe information on the facilities in here was previously obtained during previous file searches.

Q. Can you give us an idea of who else you requested on that had been turned up prior?

A. I'll have to look through this exhibit. Reith Reily would be a facility. Hull Lift Trucks. There are more, but I can't recall the names at this time.

Q. Did the information or the data that you collected from these requests and searches lead you to recommend any change in procedures to be undertaken by Conrail at the yard as far as remediation or otherwise?

A. Not myself, no.

Q. If I can finish up with some sort of recap. As part of GTI's work on behalf of Conrail -- just

bear with me, if you would, and tell me whether you performed -- GTI performed services similar to foreamentioned on behalf of Conrail. For example, a site description, you did that, I take it? Was this part of your scope of work, in other words, the work you did for Conrail? Did you do a site description?

A. What exactly entails a site --

Q. Conrail yard, Conrail facilities.

A. A description of the operation of the yard?

Q. No, just a -- you said that GTI was initially hired in regard to the NPL listing of the Conrail property. In that listing there was a site set out, correct, a Super Fund site?

A. There was a --

Q. Super Fund site which included Conrail?

MR. ERMILIO: You mean a geographic description?

MR. RUVOLO: Yeah.

A. Did we do a geographic description?

Q. Yes, meets and bounds description, a geographic description.

A. I believe a general one was done in the initial

remedial investigation report.

Q. Did you do a study of the history of the property and the operation of the property?

A. I can't comment on that.

Q. You don't know or you can't --

A. I don't know.

Q. Did you do any studies about previous incidents that may have occurred on the property in regard to spillage such as diesel fuel, carbon tetrachloride, other products, chlorinated solvents?

MR. ERMILIO: As to the event itself, the actual spill?

MR. RUVOLO: Did he do any research?

A. I may have not, but I believe it's been done.

Q. It's been done or is being done?

A. I believe it has.

Q. As a geologist, did you study the geology in the region? In order to understand the composition of the soil and the groundwater flow, did you as a geologist study the regional area?

A. The site locality, yes.

Q. And the surroundings?

A. Yes, the site as it's defined.
Q. How about outside the site going towards the river or going upgradient? Did you do a study in those areas?
A. Yes, that is the site in my mind.
MR. ERMILIO: Peter, when you say you, do you mean GTI or Frank?
Q. I'm talking about GTI. You as a geologist or your predecessor.
A. Yes, I believe it's been done.
Q. Did you do any modeling? I mean not for magazines.
A. GTI has done some modeling.
Q. In what respect?
A. With respect to the treatability studies in regards to the 106 ordinance.
Q. What goes into a modeling?
MR. ERMILIO: Peter, if I could explain. Next week Rita bo -- this may save time what you're asking here, but next week Rita Boje is going to be here to discuss the record searches and the initial RI. Two things that as Frank explained he's not able -- most knowledgeable

about. In addition, there's going to be someone by the name of Steve Baggett who is going to discuss modeling done by GTI. So he's the one who actually conducted modeling. He's most knowledgeable about modeling.

MR. RUVOLO: If he doesn't show up can we call Mr. West back to search the files?

MR. ERMILIO: If Steve Baggett doesn't show up. You can ask him the questions, but I want to let you know you will have a deponent who is more knowledgeable.

MR. RUVOLO: I understand.

Q. (Mr. Ruvolo continuing) Only what you know. I don't expect you to tell me anything you don't know.

A. What was the question again?

Q. The modeling, do you know what modeling what was -- what constituted the modeling?

A. The modeling involved -- the first thing conducted was an aquifer pump test to determine aquifer characteristics, and then these characteristics were -- would be input into the model program and then the modeling would be

conducted.

Q. Who was responsible for that part of the program or that part of the work?

A. For modeling? That would be Steve Baggett or even Bob Falotico was involved as well.

Q. Just tell me briefly what their background is.

A. Microgeologists.

Q. You told us you did some site surveying and mapping; you did soil gas surveys?

A. That's correct.

Q. You did subsurface soil sampling?

A. (Nodding)

Q. You did sediment sampling?

A. I believe that was done as part of the initial remedial investigation.

Q. How about lead screen auger sampling? Did you do any of that?

A. No, that was EPA activity.

Q. You did some groundwater monitoring and sampling?

A. Correct.

Q. And you did some soil testing?

A. Correct.

Q. Again, going back to housekeeping. Would the

results or were all those results of those testings and samplings be in one place or would you have to go to various locations or files to find them?

A. They would be in one file cabinet.

Q. Finally just so I have it clear in my own head. The initial investigation was a subsurface investigation, is that correct, back in January of '89 or so which was before -- which is just about when you started, I believe; is that correct?

A. That's correct.

Q. And was there a formal report made of that investigation?

A. Yes.

Q. And then there was a survey done, soil vapor survey done along the Track 69 area?

A. Yes.

Q. Was there a formal report made of that?

A. Yes.

Q. Then there was a Phase I, I believe, of the Track 69 investigation?

A. (Nodding)

Q. And what did that constitute overall generally?
A. Overall it involved delineation of the area where carbon tetrachloride was found during the soil vapor survey on Track 69.
Q. Was there a formal report made on that?
A. No.
Q. Going back just for a second to the first investigation which was '89 or so and the soil vapor survey which was in Track 69. When was that done?
A. Track 69?
Q. (Nodding)
A. I believe that was November of '90.
Q. Who was the project manager at that time?
A. Rita Boje.
Q. With Phase I who was the project manager?
A. Rita Boje.
Q. Not Demco?
A. No.
Q. Then you did a fourth -- a Phase II investigation around the car shop area. Is that the diesel investigation?
A. No, Phase II was an extension of the Track 69

investigation.

Q. Was there a formal report made of the findings of that investigation?

A. No.

Q. Who was the project manager at that time?

A. Rita Boje.

Q. Then you did a soil vapor survey at the west end of the classification yard?

A. That's correct.

Q. I believe that's part of the site map and tables that we referred to earlier today? Were they included in that?

A. I saw the proposal for that investigation today.

Q. Was there a formal report ever made?

A. Yes.

Q. Who was the project manager at that time?

A. Rita Boje.

Q. And then I believe your company made some remedial design studies; is that correct?

A. Yes.

Q. Groundwater extraction?

A. Yes.

Q. And groundwater treatment for another?

A. Associated with the 106 order, yes.
Q. Was a formal report made of that?
A. The results of those treatability studies were put in the 30 percent design report.

MR. RUVOLO: I have nothing more. Thanks. Thank you, Frank.

THE WITNESS: Sure.

CROSS-EXAMINATION,

QUESTIONS BY MR. FREEMAN:

Q. Mr. West, my name is Bob Freeman. I represent Gemeinhardt Company, Inc. The same same with Mr. Ruvolo. If you don't understand, please let me know. If you want to take a break, please say so. Is that alright?
A. That's fine.
Q. Are you familiar with an area within what's been called the Conrail Super Fund site known as the Larue Street area?
A. Yes.
Q. Can you tell me what your understanding of that area is?
A. It encompasses -- if I had a map I could show you easier, outline the area for you. I could

attempt to describe it for you.

Q. Why don't you describe it for me. I don't think the maps we have seen so far don't have it.

MR. ERMILIO: The ones we have seen are railyard. They're not the surrounding areas.

Q. Would you go ahead and tell me what you --

A. The Larue area is a residential area that's located to the north of the Conrail facility approximately north of the engine turnaround area.

MR. FREEMAN: Actually I'll have this marked as Exhibit 24 which is a map of the area lacking some of the detail that the other maps have.

(Plaintiff's Exhibit 24 marked for identification.)

Q. Mr. West, by reference to what's been marked as Exhibit 24, can you describe where you understand the Larue Street area to be?

A. I believe that even on this map a large portion of the Larue area is not incorporated into it. Basically the area to the northwest on this map. I don't know how I would draw it in for you.

Q. Would it be the area that's off the map to the right following along the road indicated as Larue Street?

A. Approximately straight north. I could draw an approximate area where I think it would be on the map if you like.

Q. Sure.

A. (Indicating)

Q. Would you mark your initials inside the square you've drawn.

A. (Witness complied)

Q. In that area has GTI conducted any soil vapor surveys?

A. No.

Q. Has GTI conducted any soil vapor surveys in the -- within the Conrail railyard to the south of what you've indicated as the Larue Street area?

A. No.

Q. Earlier, Mr. West, you were discussing Exhibit 16 and you discussed how GTI had requested information from the Elkhart County Health Department regarding characterization of

industrial waste in the Elkhart area; is that correct?

A. Several facilities in the Elkhart area surrounding the site, yes.

Q. I believe you stated that the purpose of that inquiry was to determine whether any of -- whether that information indicated that facilities were discharging any of the contaminants of concern; is that correct?

A. Generating.

Q. Generating contaminants?

A. Waste water that would contain any of those.

Q. I believe you testified to two facilities during your testimony. It was Reith Reily?

A. Yes.

Q. And Global Glass?

A. That's correct.

Q. Can you think of any other facilities for which you requested information?

A. I can't at this time.

Q. Were there other facilities?

A. Yes.

Q. Was one of those facilities Gemeinhardt?

A. I can't answer that now. I don't recall.

MR. FREEMAN: I have no further questions.

CROSS-EXAMINATION,

QUESTIONS BY MR. CONTE:

Q. Mr. West, my name is John Conte and I represent Penn Central in this case and I just want to follow up on some of your answers to Mr. Ruvolo's questions. First I'd just like to start with the recap that Mr. Ruvolo did at the end of his questioning. You said there was no report for the Phase I of the Track 69 investigation; is that right?

A. That's correct.

Q. I understand you did do soil borings and monitoring well installations?

A. That's correct.

Q. Do you have the results of any sampling you did?

A. The Phase I investigation, yes.

Q. The same question would go to the Phase II investigation. There was no report, correct?

A. Correct.

Q. But you do have analytical results?

A. That's correct.

MR. CONTE: Could we get a copy of those results?

MR. ERMILIO: I believe they've already been produced to you.

MR. CONTE: The only things we have is the subsurface investigation from 1989 and the soil vapor study of the Track 69 investigation.

MR. ERMILIO: I can go back and check. We can discuss it.

MR. CONTE: The same request would go for the second soil vapor investigation at the end -- western end of the classication yard and the results of the diesel investigation.

Q. (Mr. Conte continuing) If we can step back to some questions about the diesel investigation. Correct me if I'm wrong, but my understanding is that there was a problem with subsurface contamination involving diesel fuel; is that correct?

A. That's correct.

Q. And you came in and the purpose of that was to determine the extent of the contamination and to

design a remedial system; is that correct?

A. That's correct.

Q. When you did your analytical sampling for diesel did you analyze for VOc including carbon tetrachloride and TCE?

A. No.

Q. What did you analyze for?

A. TPH is diesel.

Q. And that was it, no other analyzed?

A. I believe so.

Q. Just a couple miscellaneous questions here on some of the field procedures. Mr. Ruvolo was asking about sampling and I think you said you purged 55 gallons, a specific sample he was referring to. I don't remember which one. Was that a standard procedure?

A. Purging before sampling?

Q. Well, I guess my question is how did you determine how much to purge?

A. In general you would purge a minimum of three well volumes prior to collecting a sample.

Q. How would you figure out a well volume?

A. A formula.

Q. Another question. Did you purge the well and sample it on the same day?
A. Yes, in general.
Q. What do you mean by in general?
A. In most cases we did.
Q. Why wouldn't you?
A. There may be some times if it gets dark we sample the next morning.
Q. In these wells in this area was there any problem with enough water being present in the well to sample after you've purged?
A. No.
Q. You mentioned at one point in your testimony nested wells?
A. Uh-huh.
Q. Was that related to the Track 69 investigation or was that related to the diesel investigation?
A. The Track 69 investigation.
Q. Could you explain what a nested well is?
A. Wells that would be placed close together laterally and would monitor various depth zones in the aquifer.
Q. So a shallow well that would monitor 10 to 20

feet, let's say, and another one monitor 40 to 50 feet?

A. Correct.

Q. Why would you do that? What's the purpose behind putting in a nested well?

A. To assess vertical extent of contamination.

Q. Did you think that vertical contamination or I guess I should say contamination extending downward in the aquifer would be a problem at the Conrail yard?

MR. ERMILIO: Objection. I won't let him answer one as to what he thought the particular time, and what would be a problem or wouldn't be a problem would be a matter of opinion. We're not going to let -- Frank's not here for the purpose of expressing opinions as to what would be problems.

Q. I guess let me go back then. I want to ask not as an opinion at this site, but why you would put in a nested well.

MR. ERMILIO: You're talking about generally, not particularly?

MR. CONTE: In general, and I think he

said to assess vertical contamination.

Q. Is that right?

A. That's correct.

Q. Is that a potential with all types of contaminants of concern?

MR. ERMILIO: That's a vague question. It's also asking for his opinion as an expert in the area at least to whether there would be a potential for all contaminants. If you can narrow it. I think I understand what you're trying to get at.

Q. Let me be more specific then. The contaminants of concern at this site or this investigation were carbon tetrachloride and TCE; is that correct?

A. Yes.

Q. Were there any others?

A. I believe other VOC's have been detected in low levels.

Q. Let's just talk about carbon tetrachloride and TCE then. With respect to those two contaminants, would they be expected to be encountered vertically in aquifer if they had

been released? Do you understand what I'm saying?

A. Yes, they are denser than water and therefore could tend to migrate downwards.

Q. That's all I wanted to know. Is that a general -- is that is a rule of thumb or is that something that was specific to this Conrail yard with respect to those contaminants?

A. I would say as a rule of thumb they are denser than water.

Q. Then they would be expected to migrate downward?

A. Yes.

Q. You were talking about an investigation at the ASA property or ASA --

A. ASA Fiberglass.

Q. And you mentioned looking at the septic system on that property?

A. That's correct.

Q. What was involved in that examination?

A. Placing soil vapor points around the perimeter of the septic system.

Q. Did you do any similar studies on the Conrail property or did you look for the layout of the

septic system or underground piping on that property?

A. We did no investigation following any sort of underground piping at the railyard.

Q. Did you obtain any maps of subsurface piping at the property?

A. I have not personally. That may have been done earlier in the project.

Q. As far as pump tests go at the Conrail property, could you summarize briefly what pump tests have been done there?

A. There have been two pump tests conducted.

Q. When were they conducted?

A. One was conducted at the end of the Phase II Track 69 investigation and one was conducted, I believe it was, early March of this year as part of the treatability studies associated with remedial action design.

Q. Do you remember the results of those?

A. They were in fairly good agreement. As far as aquifer characteristics values or --

Q. Yeah, as far as the hydraulic conductivity.

A. I believe the transmissivity ranged between

63,000 and 125,000 gallons per day per foot and I believe the conductivity ranged 400 to 1,000 gallons per day per foot.

Q. Those pump tests results are in the reports, right?

A. The pump test results for the treatability study pump tests are in the 30 percent design document.

Q. There was no Phase II report; is that correct?

A. That's correct.

MR. CONTE: Could we get copies of the pump test results from the Phase II? Are those available?

MR. ERMILIO: For Phase II?

MR. CONTE: The pump test you did during Phase II.

THE WITNESS: They've been produced.

MR. ERMILIO: You haven't seen those? I believe you have them. We can talk about this later.

Q. (Mr. Conte continuing) Mr. Ruvolo was going through the depths of some of the borings and talking about carbon tetrachloride and TCE contamination. How did you decide where to stop

your borings?

A. In general as part of the Phase I Track 69 investigation when two non-detects -- when two soil samples resulted into non-detects, the boring would be terminated. If we hit a confining plate layer, the boring would be terminated or a maximum depth of 85 feet, and if contamination was still present, then we would consult with Conrail to decide to go deeper or not.

Q. What was the significance of 85 feet?

A. Cost estimating purposes.

Q. I don't quite understand.

A. Basing our costs on a maximum drilling depth of 85 anticipating that that would be as deep as we needed to go.

Q. You were drilling with hollow-stem augers with the split spoon?

A. That's correct.

Q. Did you take any steps to minimize the possibility of cross contamination with depth?

A. Yes, each split spoon after being used was decontaminated with distilled water and alkaline

solution, rinsed with distilled water before being used again.

Q. Were any of the wells drilled with separate diameters where you would case off a contaminated zone and proceed further?

A. No.

Q. On Exhibit 5 you're talking about some soil analysis and I guess this can go toward all of the field activities. You had a field gas chromatograph out there?

A. Yes.

Q. Were any samples that were run through that apparatus verified at a fixed base laboratory?

A. In general one sample from each boring was submitted to a lab, an outside lab or off-site lab to compare.

Q. One thing that -- one question I had. Exhibit 12, I think Mr. Ruvolo asked about your duplicates?

A. Yes.

Q. He said that the duplicates were not labeled; is that right?

A. On the chain of custody I don't believe they

were. They would be in the field notebook.

Q. So the laboratory did not know which sample that was a duplicate of; is that correct?

A. That's correct.

Q. But you in the field and whoever had taken the samples did have a record?

A. That's correct.

Q. Just wanted to make sure that was clear. Finally as far as the modeling goes or the modeling that GTI has done, I understand that you didn't do it.

MR. CONTE: Jim, maybe you can answer this. Will Steve Baggett be here next week?

MR. ERMILIO: He'll be here Wednesday. Rita should take no more than two days, Monday and Tuesday, because she's got really a smaller area -- time span and Frank has been able to cover the vast majority of what she has done. We're anticipating Rita for two days and Steve on Wednesday.

Q. Mr. West, do you know what types of models were used or what types of models were run at this site?

A. I believe it was a two-dimensional model called

mod flow.

MR. CONTE: I don't have any further questions.

CROSS-EXAMINATION,

QUESTIONS BY MR. WOODSMALL:

Q. Mr. West, my name is Jim Woodsmall. I represent Elkhart Office Machines. I just have a few questions. You said that you did a soil vapor survey, I believe, at ASA Fiberglass, Walerko and Elkhart Office Machines; is that correct?

A. That's correct.

Q. Did you do any other work at those three sites?

A. No.

Q. The soil vapor survey that was done was similar to what you earlier described for Mr. Ruvolo?

A. That's correct.

Q. You just punched a hole and put it in?

A. (Nodding)

Q. Did you do any other work for Conrail outside of the physical bounds of the Conrail railyard on any of the other properties surrounding the railyard?

A. Other than soil vapor surveys?

Q. Other than the three we just talked about.
A. Could you repeat the three again.
Q. ASA Fiberglass, Walerko and Elkhart Office Machines.
A. Yes, there was one done at the Robert Martin drum site.
Q. I'm sorry. I think you did mention that. That was also a soil vapor survey?
A. That's correct.
Q. That's all that you did on the Conrail yard?
A. That's correct.
Q. What substances did you discover at those sites, if you recall?
A. We analyzed for carbon tetrachloride and TCE.
Q. And that's all?
A. Yes.

MR. WOODSMALL: Deanne, can we have this marked as EOM Exhibit A.

(EOM Exhibit A marked for identification.)

Q. Mr. West, you're looking at what's been marked as EOM Exhibit A. Can you tell me what that is, please?

A. These are the results for the Elkhart Office Machine soil vapor survey.
Q. Those are the results from the tests that you did; is that correct?
A. That's right.
Q. Towards the bottom on I believe it's the second page there's one marked SG-7S2. What is that?
A. That would be a soil sample collected at the soil vapor point 759 two foot in depth.
Q. Were all of them done at two feet?
A. This was the only soil sample collected.
Q. Was that soil sample sent to a lab then?
A. No, it was not.
Q. What depth were the other vapor surveys done?
A. Three feet.

MR. WOODSMALL: I have no further questions.

MR. ERMILIO: Do you want to go ahead?

MR. RUVOLO: No, go ahead.

MR. ERMILIO: I don't have any questions.

MR. RUVOLO: I have a request which we can do after the deposition, but there are some

documents that you sent us that we just have no way of identifying. Maybe Mr. West or yourself can take a look at them and tell us what they are.

MR. ERMILIO: Do you have them here with you?

MR. RUVOLO: Yeah, rather than the take the time of everybody.

MR. ERMILIO: Okay. I think that does it. We're all done.

THE COURT REPORTER: What about signature?

MR. ERMILIO: Yes, read and sign.

AND FURTHER THE DEPONENT SAITH NAUGHT.

FRANK D. WEST

STATE OF INDIANA)
) SS:
COUNTY OF MARION)

I, Deanne S. Hutson, a Notary Public in and for said county and state, do hereby certify that the deponent herein was by me first duly sworn to tell the truth, the whole truth and nothing but the truth in the aforementioned matter;

That the foregoing deposition was taken on behalf of the Plaintiff; that said deposition was taken at the time and place heretofore mentioned;

That said deposition was taken down in stenograph notes and afterwards reduced to typewriting under my direction, and that the typewritten transcript is a true record of the testimony given by said deponent;

And that the deposition upon oral examination was taken down in stenograph notes and afterwards reduced to writing under my direction and that signature was reserved by the deponent and all parties present.

I do further certify that I am a disinterested person in this cause of action; that I am not a relative or attorney of any of the parties, or otherwise interested in the event of this cause of action, and am not in the employ of the attorneys for

any of the parties.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal this 6th day of December, 1993.

Deanne S. Hutson, Notary Public
Residing in Marion County, Indiana

My commission expires:
November 6, 1994